



The effectiveness of group-based learning in improving elementary students' social studies learning outcomes and cooperative attitudes

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ABSTRACT

Group-based learning provides opportunities for elementary students to develop academic understanding while learning to interact, cooperate, and support their peers. This study examined changes in students' social studies learning outcomes and cooperative attitudes following the implementation of group-based learning in an elementary classroom. The study employed Classroom Action Research (CAR) conducted in two cycles, each consisting of planning, action, observation, and reflection. Participants were 14 third-grade students at SDN Lidah Wetan IV, Surabaya, Indonesia. Data were collected through classroom observations, interviews, documentation, and a literature review and were analyzed inductively by organizing, presenting, and interpreting the evidence obtained across the research cycles. The findings showed progressive changes in students' participation, cooperation, and understanding of social studies content. During the initial classroom observations, learning was predominantly individual and teacher-centered, and students showed signs of boredom and difficulty understanding cardinal directions and floor plans. In the first cycle, group activities encouraged students with stronger understanding to assist peers who experienced difficulties, while students became more actively involved in learning. By the second cycle, students demonstrated greater enthusiasm, social interaction, task sharing, and cooperation when completing the floor-plan activity. The classroom evidence also indicated improved understanding of cardinal directions and floor plans across the cycles. These findings suggest that group-based learning can provide a supportive classroom environment in which students develop subject-matter understanding alongside cooperative behaviors. Within the context of this classroom action research, group-based activities were particularly useful for encouraging peer support and active participation in elementary social studies learning.

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INTRODUCTION

Elementary education provides an important foundation for students' academic, social, and personal development. Education at this level is concerned not only with the acquisition of knowledge but also with preparing children to participate meaningfully in their social environment and assume increasingly complex roles as they develop (Doncaster & Bullock, 2024; Kaiser, 2024). Learning experiences can contribute to this development by supporting students' physical, cognitive, and social growth and by creating opportunities for them to interact with their surroundings (Y. Liu et al., 2023; Tamblyn et al., 2023). Educational activities such as teaching, guidance, and structured learning are therefore expected to prepare students for future participation in society (Alexa et al.,

2022; Bardone et al., 2022). Within the classroom, this requires learning environments that do more than transmit information. Effective learning increasingly emphasizes active student participation, meaningful engagement, and opportunities for learners to take greater responsibility for the learning process (Iterbeke et al., 2022; Yaqinuddin et al., 2016; Yoong et al., 2023).

The value of classroom learning also extends beyond academic achievement. Learning experiences can contribute to changes in students' attitudes and everyday behavior, particularly when classroom activities connect knowledge with meaningful social experiences (Al-Ma'seb et al., 2023; Jankowski & Job, 2023). This is especially relevant in elementary education, where students are developing both academic readiness and social-emotional competencies (Mutia, 2021; Whittaker et al., 2024). Social studies has an important role in this process because it addresses how individuals understand and participate in social life. The subject is intended to develop students' awareness of their social environment, responsiveness to social issues, problem-solving abilities, and positive social behavior (Beer et al., 2023; Yilmaz, 2008). Its interdisciplinary character, drawing on fields such as history, geography, economics, sociology, anthropology, law, psychology, and political science, also provides opportunities for students to examine social phenomena from multiple perspectives (Lucas & Park, 2023; Salehi et al., 2023).

Despite this potential, social studies learning in elementary classrooms may still rely heavily on teacher-centered instruction and the transmission of information. Previous studies have raised broader concerns about learning environments in which students have limited opportunities to participate actively, interact with peers, or regulate their own learning (Ader et al., 2023; He et al., 2023). In social studies, an emphasis on lectures, textbooks, and memorization may be particularly problematic when students are expected to understand concepts that are closely connected to their everyday social and spatial environments. Limited instructional time may further constrain opportunities for more varied classroom activities (Wu et al., 2024). Learning that provides few opportunities for interaction can also reduce students' interest and engagement. This issue highlights the importance of instructional approaches that allow elementary students to learn social studies not only by listening to explanations but also by participating, communicating, and working with others (Liben et al., 2024).

Teachers therefore play an important role in creating classroom conditions that support meaningful participation. Learning outcomes are shaped not only by instructional content but also by classroom conditions, available learning resources, student engagement, and the ways teachers organize learning experiences (J. Liu et al., 2024). The selection of an instructional approach should consequently take account of students' developmental characteristics and the context in which learning occurs (Malay et al., 2024; Mydin et al., 2024). A range of approaches has been explored to make classroom learning more participatory and contextually meaningful. These include the integration of local wisdom into learning (Mahrinasari et al., 2024; Sakti et al., 2024), collaborative approaches such as the Jigsaw strategy (Chng et al., 2024; Riant et al., 2024), and technology-supported or blended learning environments intended to strengthen student engagement and learning (Azizah et al., 2024; Go et al., 2024; Xiao & Hew, 2024). Although these approaches differ in design and context, they share an emphasis on moving students beyond passive participation.

Group-based or cooperative learning is particularly relevant to this goal because it organizes learning around interaction among students rather than relying solely on teacher-directed activities. Cooperative learning provides students with opportunities to express ideas, listen to different perspectives, assist peers, and work toward shared goals (Mujazi, 2020). Such experiences are especially relevant in elementary social studies, where academic learning can be connected with the development of social behaviors. Previous research has associated cooperative learning with student motivation and participation (Meyer et al., 2024), while group activities can create more opportunities for students to become actively involved in classroom learning (Hasmirati et al., 2023; Salomé et al., 2024). In heterogeneous groups, interaction may also allow students with different levels of understanding to support one another as they work through learning tasks.

However, existing studies do not fully explain how these academic and social processes unfold during group-based social studies learning in an elementary classroom. Much of the literature cited above addresses cooperative, collaborative, blended, or participatory learning across different subjects and educational settings, whereas fewer studies have documented, through successive

classroom-action cycles, how group-based activities can be refined in response to students' difficulties and how changes in conceptual understanding occur alongside cooperation and peer support. This issue is particularly relevant for younger learners, for whom social studies concepts such as cardinal directions and floor plans may require both concrete learning experiences and interaction with peers. Examining the learning process across classroom-action cycles can therefore provide a more contextual understanding of how group-based learning operates in an authentic elementary classroom rather than focusing solely on final academic outcomes.

Against this background, the present study examines the implementation of group-based learning in third-grade social studies at SDN Lidah Wetan IV, Surabaya. Using classroom action research, the study focuses on changes in students' understanding of social studies content and their cooperative behaviors as learning activities are developed and refined across successive cycles. The study therefore seeks to describe how group-based learning supports students' participation, peer interaction, and understanding of cardinal directions and floor plans within the specific classroom context. By examining academic understanding and cooperative behavior together, the study is expected to provide practical evidence for elementary teachers seeking to design social studies learning that combines subject-matter learning with meaningful opportunities for students to work with and support one another.

METHOD

This study employed a qualitative approach using Classroom Action Research (CAR) to examine and improve group-based social studies learning in an authentic classroom setting. A qualitative approach was considered appropriate because the study focused on students' actions, interactions, experiences, and responses during the learning process (Zellou et al., 2024). CAR was used as a systematic process of implementing, observing, and reflecting on instructional actions to improve classroom practice (Martins et al., 2024; Ryder & Browne, 2024). The study followed the Kemmis and McTaggart model and was conducted in two cycles, with each cycle comprising four stages: planning, action, observation, and reflection (Salleh & Aiman, 2015). The research was conducted in November 2023 with 14 third-grade students at SDN Lidah Wetan IV, Surabaya, Indonesia. Before the first cycle, preliminary classroom observations and an interview with the third-grade teacher were conducted to identify problems in the existing social studies learning process and to provide a basis for planning the classroom action.

Data were collected through classroom observations, interviews, documentation, and a literature review. The use of multiple data sources was intended to provide complementary evidence and support data triangulation (Trivedi et al., 2021). During the planning stage of each cycle, the researchers reviewed the findings from the preliminary observation or the preceding cycle and prepared the instructional activities needed to address the identified classroom problems. During the action stage, group-based social studies learning was implemented with the participating students. Classroom observations were conducted throughout the intervention to document students' participation, interactions, cooperation, responses to the learning activities, and understanding of the material. The reflection stage involved reviewing the implementation and observational findings to identify aspects that required improvement in the subsequent cycle. Documentation, including photographs taken during the classroom activities, was used to complement the observational evidence. Relevant articles, journals, and books were also reviewed to provide supporting literature related to the research topic (Marzali, 2017).

The data were analyzed inductively through data condensation, data display, and conclusion drawing (Sheard, 2022). Evidence obtained from the different data sources was organized and compared across the preliminary stage, Cycle 1, and Cycle 2 to identify changes in students' participation, cooperative behaviors, and understanding of the social studies content. The findings from interviews, observations, and documentation were considered together during interpretation to provide a more comprehensive account of the changes observed throughout the classroom action research.

RESULTS AND DISCUSSION

Results

Initial Classroom Conditions

Preliminary observations and an interview with the third-grade teacher on November 2, 2023, provided an overview of the existing social studies learning process at SDN Lidah Wetan IV, Surabaya. Social studies content was integrated into thematic learning rather than taught as a separate subject. The teacher identified cardinal directions and floor plans as topics that students found particularly difficult. The classroom seats were arranged in a U-shape, with students positioned partly according to their level of understanding. However, despite this arrangement, the observed lesson did not involve structured group activities. Instruction remained predominantly teacher-directed, and students completed learning activities individually. During the lesson on cardinal directions, several students appeared to lose interest and had difficulty identifying directions correctly.

The U-shaped seating arrangement provided a physical setting that could support interaction, although seating configuration alone did not necessarily result in collaborative learning. Previous research has suggested that U-shaped seating can encourage students to become more active and engaged in classroom activities (Luwesty, 2017). In the present classroom, however, the initial observation indicated that opportunities for peer interaction remained limited. This distinction became an important consideration in planning the first action cycle: rather than relying solely on classroom arrangement, students needed structured opportunities to work with and support one another.

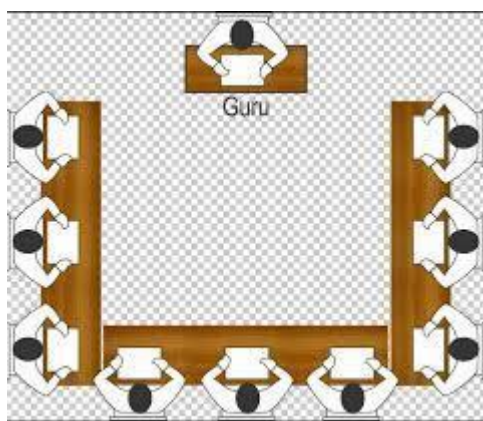


Figure 1. U-Shaped Classroom Seating Arrangement

Cycle 1: Introducing Group-Based Learning

Based on the preliminary observations, the first cycle was conducted on November 9, 2023, using the same social studies content on cardinal directions and floor plans. Students were organized into three heterogeneous groups of four to five members. Each group included students who demonstrated different levels of understanding so that students could interact and assist one another during the learning activities. At the beginning of the cycle, several students still had difficulty identifying cardinal directions. This was evident when students were asked simple directional questions and some were unable to identify the correct answer.

During the group activities, students practiced identifying cardinal directions while receiving guidance from the research team. Peer assistance also emerged within the groups: students who had already understood the material were observed helping classmates who were experiencing difficulties. Compared with the predominantly individual activities observed before the intervention, the first cycle therefore provided more visible opportunities for interaction, peer support, and shared participation. These observations suggest that group-based activities can create conditions in which students with different levels of understanding work together toward the same learning goal.



Figure 2. Group-Based Learning Activities in Cycle 1

A song based on the melody of “Sayonara” was also introduced to help students remember the eight cardinal directions. By the end of Cycle 1, most students were able to identify and indicate the cardinal directions correctly. The use of songs as part of classroom activities has been associated with helping children remember learning material while reducing monotony during instruction (Norhaniah & Tindangen, 2021). In this study, the song complemented the group activities by providing students with an additional way to recall the sequence of directions.

Delapan Arah Mata Angin

(Sayonara)

Arah..mata angin...itu ada delapan macam

Yang per...tama itu utara, Kedua timur laut...

Yang ketiga timur

Keempat tenggara

Kelima itu arah selatan

Yang keenam itu

Arah barat daya

Yang ketujuh itu arah barat

Yang terakhir itu

Arah barat laut

Yang terakhir arah barat laut

Figure 3. Song Used to Introduce the Eight Cardinal Directions

Reflection on Cycle 1 nevertheless showed that the intended learning objectives had not been fully achieved. Although approximately 90% of the students were reported to have understood the cardinal directions, several students continued to experience difficulty with floor plans. The research team therefore revised the instructional activities for Cycle 2 by retaining the group-based approach while placing greater emphasis on applying students’ understanding of directions to a concrete floor-plan task.

Cycle 2: Strengthening Cooperation through the Floor-Plan Activity

Cycle 2 was conducted on November 16, 2023, and focused on floor-plan material. Students remained in three groups of four to five members. After a brief review of cardinal directions and an explanation of the floor-plan task, the groups were provided with the materials required to construct a floor plan. Students responded enthusiastically to the activity and independently reorganized themselves into small circles on the floor to complete the task. This behavioral response differed from the initial classroom observation, in which learning had been predominantly individual and signs of boredom were observed.



Figure 4. Group-Based Learning Activities in Cycle 2



Figure 5. Materials Used in the Floor-Plan Activity

More differentiated forms of cooperation were observed during this cycle. Students divided responsibilities within their groups, with some cutting materials, others arranging components, and others providing directions. All groups completed the floor-plan task correctly. This outcome provided evidence that students were able to apply their understanding of cardinal directions within the floor-plan activity while coordinating their contributions with other group members. The observed division of responsibilities, peer direction, and completion of a shared task also indicate stronger cooperative behavior than was evident during the initial classroom observation.

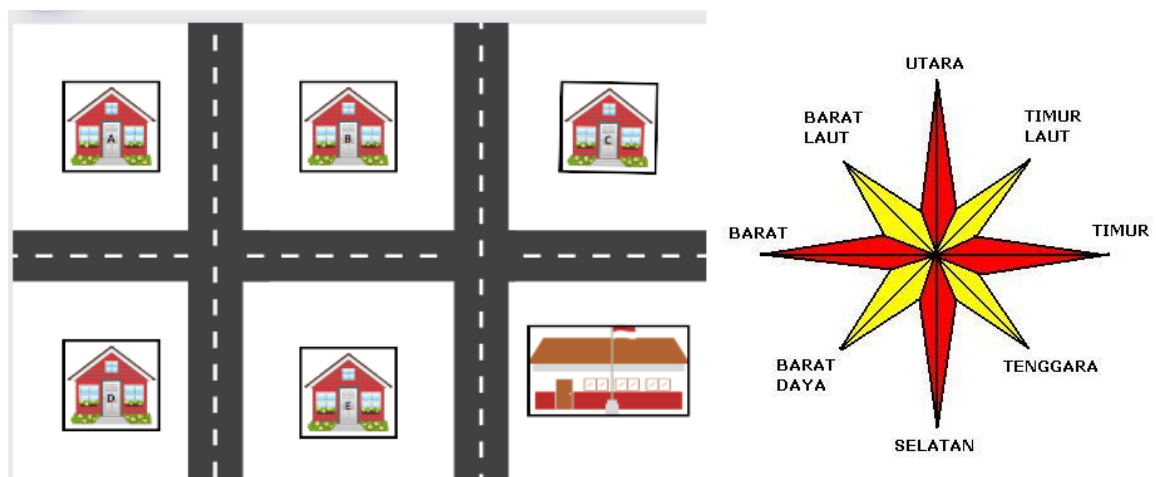


Figure 6. Completed Floor-Plan Activity

The progression across the preliminary stage, Cycle 1, and Cycle 2 is summarized in Table 1. The comparison focuses on the form of learning activities, students' responses, the instructional content, learning achievements, and the reflection used to inform the subsequent cycle.

Table 1. Comparison of the Preliminary Stage, Cycle 1, and Cycle 2

Aspect	Preliminary Stage	Cycle 1	Cycle 2
Learning activities	Predominantly individual	Group-based	Group-based
Student responses	Signs of boredom and limited enthusiasm	Greater enthusiasm and emerging peer support	Greater enthusiasm, interaction, task sharing, and cooperation
Material	Cardinal directions and floor plans	Cardinal directions and floor plans	Floor plans, with a review of cardinal directions
Instructor	Classroom teacher	Researchers and team	Researchers and team
Learning achievement	Students continued to experience difficulty identifying directions consistently	Most students were able to identify the eight cardinal directions; difficulties with floor plans remained	Students completed the floor-plan activity correctly by applying cardinal directions
Reflection	Students required additional support in understanding cardinal directions and floor plans	Further support was needed for understanding floor plans	The targeted floor-plan activity was completed

The comparison shows a gradual change in both the learning process and students' responses. The preliminary stage was characterized by individual activities and limited student engagement. Cycle 1 introduced structured group work and showed emerging peer assistance alongside improved understanding of cardinal directions. Cycle 2 extended the collaborative component through a shared floor-plan task, during which students divided responsibilities, interacted with peers, and completed the assigned product. Thus, the most notable change was not simply the replacement of individual work with group work, but the emergence of more observable forms of peer support and coordinated participation across the two action cycles.

Discussion

The findings suggest that group-based learning provided a classroom structure in which academic understanding and cooperative behavior could develop alongside one another. During Cycle 1, students who understood the cardinal directions were observed assisting peers who experienced difficulties. By Cycle 2, cooperation became more visible through the division of tasks, peer direction, and joint completion of the floor-plan activity. These behaviors are consistent with the social nature of cooperative learning, in which students work toward shared objectives while contributing to one another's learning.

The progression observed across the cycles is also relevant to the learning of social studies content. Understanding cardinal directions was initially difficult for several students, but most students were able to identify the directions after the first cycle. The second cycle then required them to apply this understanding to a more concrete floor-plan activity. Rather than treating the two cycles as repetitions of the same instruction, the sequence can therefore be understood as a progression from identifying directional concepts toward applying them collaboratively in a contextual task. This progression is particularly relevant to elementary social studies because concepts related to space and direction can be connected to students' immediate experiences and represented through concrete activities.

The findings also support previous work emphasizing the value of active participation in group learning. Group-based activities provide students with opportunities to contribute to the learning process rather than remaining primarily recipients of teacher explanations. In the present study, this was reflected in peer assistance during Cycle 1 and more differentiated task sharing during Cycle 2. Such participation is consistent with previous research indicating that group activities can increase opportunities for students to take an active role in learning (Hasmirati et al., 2023; Salomé et al., 2024). The findings also align with the broader rationale for cooperative learning described by Mujazi (2020), particularly in relation to interaction, shared responsibility, and learning with peers.

The changes in students' responses should nevertheless be interpreted cautiously. The study provides observational evidence of increased enthusiasm, interaction, peer assistance, and task sharing, but it did not employ a standardized measure of cooperative attitudes. It would therefore be too strong to conclude that students' cooperation or social sensitivity increased by a specific magnitude. A more appropriate interpretation is that cooperative behaviors became increasingly visible across the classroom-action cycles. Similarly, successful completion of the floor-plan activity provides evidence of students' understanding within the task used in this study, but does not by itself establish a generalized improvement in social studies achievement.

Beyond immediate classroom participation, collaborative activities may contribute to broader aspects of students' social development. The original study relates group-based learning to the development of performance, moral, spiritual, and relational dimensions of character (López et al., 2023; Wang et al., 2023). The present findings do not directly measure these dimensions, but the observed behaviors—helping peers, sharing responsibilities, providing directions, and working toward a common task—illustrate classroom experiences through which relational and cooperative behaviors can be practiced.

In this sense, group-based learning may be particularly relevant to elementary social studies because the instructional process itself can provide opportunities to practice forms of social interaction that are consistent with the broader purposes of the subject.

At the same time, the findings should be understood within the boundaries of the classroom action research design. The study involved only 14 students in one third-grade classroom and was conducted over two action cycles. Changes across the cycles also coincided with modifications to the instructional activities, including the introduction of a song in Cycle 1 and a hands-on floor-plan task in Cycle 2. Consequently, the observed changes cannot be attributed exclusively to group-based learning. The absence of a comparison group, standardized outcome measures, and a formal scale of cooperative attitudes further limits claims regarding effectiveness. The study is therefore most informative as a contextual account of how group-based social studies learning was progressively refined and how students responded to those changes within one classroom.

Future research could build on these findings by examining group-based social studies learning with larger and more diverse samples and by using measures that capture both academic learning outcomes and cooperative attitudes more systematically. Studies could also compare group-based learning with other instructional arrangements or examine which components of the intervention—peer interaction, group composition, songs, hands-on activities, or task structure—contribute most clearly to students' learning. Longer-term studies would also be useful for determining whether the cooperative behaviors observed during the action cycles are sustained and transferred to other social studies topics and classroom situations.

CONCLUSION

This study shows that group-based learning provided a meaningful classroom structure for supporting both students' understanding of social studies content and the development of cooperative behaviors. Across the two action cycles, students moved from predominantly individual and teacher-directed learning toward more active participation, peer assistance, shared responsibility, and collaborative task completion. Most students were able to identify cardinal directions after the first cycle, while the second cycle enabled them to apply this understanding in a concrete floor-plan activity through task sharing and peer interaction. Rather than suggesting that group work alone produced these changes, the findings highlight the value of progressively refining learning activities in response to students' needs. The study therefore contributes classroom-based evidence that group learning in elementary social studies can bring academic and social learning together, particularly when activities are structured around meaningful tasks that require students to interact, support one another, and work toward a shared goal. For teachers, this suggests that group-based activities can be used not simply as an alternative seating or task arrangement, but as a deliberate instructional strategy for creating opportunities for active participation, peer learning, and the practical application of social studies concepts.

These findings should, however, be interpreted within the scope of this classroom action research. The study involved only 14 third-grade students in a single classroom and was conducted over two cycles; moreover, the instructional activities changed across cycles, including the use of a song and a hands-on floor-plan task. Without a comparison group or standardized measures of learning outcomes and cooperative attitudes, the observed changes cannot be attributed exclusively to group-based learning or generalized beyond the study context. Future research could examine similar approaches with larger and more diverse samples, employ more systematic measures of both academic achievement and cooperative attitudes, and compare group-based learning with other instructional arrangements. Longer-term studies could also explore whether the cooperative behaviors observed here are sustained over time and transferred to other topics and classroom situations, while further research could disentangle the contribution of specific elements—such as group composition, peer interaction, task structure, songs, and hands-on activities—to students' academic and social learning.

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