Optimizing social skills of elementary school students through cooperative and collaborative learning approaches

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ARTICLE INFO	ABSTRACT
	This study explores the implementation of cooperative and collaborative learning in a fourth grade elementary classroom and its contribution to optimizing students social skills. The research employed a descriptive qualitative approach with a case study design. The participants were 25 fourth grade students with diverse academic abilities and backgrounds, supported by the classroom teacher as a key informant. Data were collected through participatory observation, in depth interviews, and limited documentation. The observation focused on group learning activities that reflected cooperation and collaboration, including task distribution, peer discussion, idea exchange, and shared decision making. Data analysis followed the Miles and Huberman qualitative analysis model, covering data reduction, data display, and conclusion drawing. The findings indicate that cooperative learning helped students develop responsibility and structured teamwork through clear roles and individual accountability. Collaborative learning supported the growth of communication skills by encouraging open discussion and active participation. Interview results showed that students felt more comfortable asking questions, sharing opinions, and working with peers during group learning activities. Teachers also reported positive changes in student engagement and social interaction patterns. These results suggest that integrating cooperative and collaborative learning within one learning process supports the development of students social skills in a meaningful classroom context.

INTRODUCTION

Primary education is an important foundation for shaping students' character and basic skills. At the elementary school level, the learning process needs to accommodate students' cognitive, affective, and psychomotor development (Naro et al., 2023). National education policies emphasize that learning in elementary schools should be oriented toward student active participation and the strengthening of twenty first century competencies. However, in practice, learning activities in elementary schools still face many challenges, especially the dominance of teacher centered approaches. Data from Zakirman et al., (2019) show that classroom learning activities in elementary schools are still largely dominated by lecture methods, which results in low levels of students' active participation.

Teacher centered learning conditions directly affect the low development of students' social skills during the learning process. Students tend to act more as receivers of information rather than active participants who are involved in discussion and cooperation. Several studies have reported that elementary school students show limited involvement in classroom discussions, especially in learning situations that do not apply group based approaches (Ahmad, 2021). This condition can

hinder the development of social skills such as cooperation, expressing opinions, and respecting others' perspectives, even though these skills are part of the core objectives of elementary education (Nurhasanah et al., 2025). Bhardwaj et al., (2025), explained that learning which emphasizes individual mastery of content also makes students less familiar with collaborative problem solving. Social life and future workplaces require individuals to work in teams and solve problems together. International studies indicate that students who frequently experience collaborative learning tend to have higher levels of problem solving and communication skills compared to those who only follow conventional learning approaches (Zhang et al., 2017; Warsah et al., 2021). In practice, particularly in grade IV at Totobo 1 public elementary school, learning activities still tend to rely on traditional approaches that position the teacher as the center of instruction. This model often leads students to become passive in interaction and discussion, which limits the development of their social skills. Learning that focuses on individual content mastery can also reduce students' ability to cooperate or help each other in solving problems. For this reason, more dynamic learning approaches are needed to actively involve students and support the improvement of their social skills.

Cooperative and collaborative approaches are learning methods that can address these challenges. Cooperative learning emphasizes student cooperation in small groups to complete tasks or solve problems together (Wells et al., 2025), while collaborative learning encourages students to share knowledge, ideas, and experiences in a broader learning context (Ernstsen et al., 2025). The application of these approaches is expected to support the development of students' social skills, communication abilities, and problem solving processes. Cooperative and collaborative learning also create a more engaging and interactive learning environment, which may influence students' motivation and learning outcomes (Amumpuni et al., 2025). These approaches are consistent with active learning principles that place students as central participants in the learning process.

Previous studies have shown that cooperative and collaborative learning approaches are effective in improving elementary school students' learning outcomes. An experimental study conducted in Taichung City reported that after eight weeks of game based cooperative learning using the Quizlet platform, the experimental group achieved higher learning satisfaction, peer interaction, and learning effectiveness compared to students who learned individually. The study also found a strong positive correlation between learning satisfaction and learning effectiveness (Lin et al., 2025). These findings are supported by a second order meta analysis of 23 meta analytic studies from 2010 to 2021, which concluded that cooperative learning has a moderate effect on student learning outcomes across various domains (Öztürk, 2023). Alzubi et al., (2024) examined collaborative learning interventions among EFL university students and found that participants showed better teamwork skills, peer learning experiences, and social interaction than those in conventional learning settings. Kusumaningsih & Sun, (2025) studied the application of Collaborative Reasoning in grade IV elementary students and reported significant improvements in decision making skills and social awareness during the intervention, as well as a relationship between teacher scaffolding and students' social emotional development. These studies suggest that collaborative learning contributes to the development of social and social emotional skills across educational levels.

Although cooperative and collaborative learning have been widely studied, many previous studies still focus mainly on academic achievement, while their implications for the development

of elementary students' social skills receive less attention. Research that integrates cooperative and collaborative learning simultaneously to optimize social skills is also relatively limited, especially in the context of grade four elementary classrooms. Social skills are essential competencies that need to be developed from an early age through learning experiences that involve direct interaction among students (Xovoxon, 2024). This study seeks to address this gap by exploring the implementation of cooperative and collaborative learning approaches as instructional strategies oriented toward improving elementary school students' social skills through classroom interaction dynamics.

Based on this research gap, the present study offers an implementative perspective by integrating cooperative and collaborative learning approaches with a focus on the learning process, particularly student engagement and classroom interaction. The study does not only examine learning outcomes from an academic perspective, but also highlights how group work processes, peer communication, and students' roles are realized in actual classroom practices. The purpose of this study is to explore how the implementation of cooperative and collaborative learning in grade IV elementary classrooms relates to students' social skills. The findings are expected to contribute to theoretical discussions on active learning in elementary education and provide practical insights for teachers in designing more participatory and collaborative learning environments.

METHOD

This study applied a descriptive qualitative approach that aimed to describe the implementation of cooperative and collaborative learning as one integrated learning process and its implications for students' social skills in the classroom (Sugiyono, 2023). The research was conducted with 25 fourth grade elementary school students who had varied academic abilities and different backgrounds. The classroom teacher was involved as a supporting informant to provide reflections on how the learning process was carried out and how students responded during the research activities. The teacher stated that students showed different levels of participation during group work, which became an important source of reflection for the study.

The research design used was a case study, which allowed the researcher to examine in depth and in context the implementation of cooperative and collaborative learning within one class setting (Kyza & Georgiou, 2025). The selection of research subjects and the research site was done purposively. This decision was based on classroom conditions that showed limited interaction among students and the low use of active learning strategies that rely on group work activities. These conditions were considered relevant to explore changes in students' social skills during the learning process.

Data were collected through observation and in depth interviews. Participatory observation was used to observe the learning process, student involvement, and interaction patterns that appeared during the implementation of cooperative and collaborative learning. The observation focused on group learning activities that reflected the principles of cooperative learning, such as task distribution and individual responsibility, and the principles of collaborative learning, such as discussion, idea exchange, and joint decision making. These activities were then analyzed using indicators of students' social skills. Observation data were collected using an instrument sheet that contained aspects and indicators of social skills, including the ability to cooperate, communication

skills, and responsibility within the group. In depth interviews were conducted with the classroom teacher to explore reflections on the learning implementation, student engagement, and obstacles faced during the learning process. Documentation was used in a limited way as supporting data, such as learning tools and recapitulation of observation assessment results.

The indicators of social skills in this study were developed by referring to the social skills domains proposed by Koprowska (2003), which include communication skills, cooperation, and social responsibility. These indicators were translated into observable behaviors that were relevant to the context of group based learning activities.

Table 1. Presents the aspects and indicators of social skills

No.	Social Skills Aspect	Indicators
1.	Cooperation skills	Participation in group activities
		Task distribution
		Helping each other
2.	Communication skills	Expressing opinions
		Listenng to others' opinions
		Asking and responding
3.	Sense of responsibility	Performing assigned roles
		Task completion
		Commitment to group outcomes

Data analysis followed the qualitative data analysis model proposed by Miles and Huberman, which includes data reduction, data display, and conclusion drawing with verification. The results of data analysis were presented in the form of descriptive narratives, supported by tables and diagrams to help clarify patterns found in the study (Asipi et al., 2022). Figure 1 can be presented in this section in the form of a qualitative data analysis flow chart to illustrate the stages of analysis carried out by the researcher.
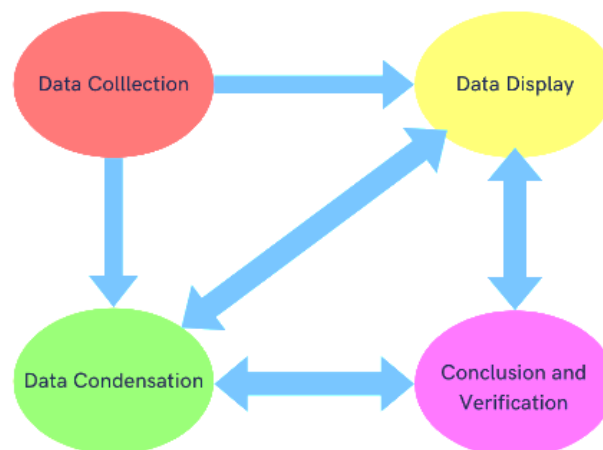

Figure 1. Flow chart of qualitative data analysis

Data trustworthiness was maintained through source and method triangulation by comparing data obtained from observations and interviews. Member checking was also conducted with informants to ensure that the interpretation of the data was consistent with the participants' experiences and perspectives.

RESULTS AND DISCUSSION

1. Results

The implementation of cooperative and collaborative approaches in grade fourth elementary school was carried out for one semester, focusing on Indonesian Language and Mathematics subjects. The main aim of applying these approaches was to increase students' active involvement in learning activities, strengthen their understanding of the subject matter, and support the development of social skills, especially cooperation, communication, and responsibility within groups. The learning process was organized to encourage interaction among students in small groups, while the teacher took the role of a facilitator who guided activities and supported a participatory classroom atmosphere.

To clarify the relationship between social skills indicators and the applied learning approaches, this study developed a mapping of indicators based on the characteristics of cooperative learning and collaborative learning. This mapping was intended to show that the observed social skills indicators did not appear by chance, but grew through learning activities that matched the principles of each approach. The table below presents the relationship between aspects and indicators of social skills and the cooperative and collaborative learning approaches used during classroom instruction.

Table 2. Relationship between Social Skills Indicators and Cooperative and Collaborative Learning Approaches

Social Skills Aspect	Indicators	Cooperative Learning	Collaborative Learning
Cooperation skills	Participation in group activities		✓
	Task distribution	✓	
	Helping each other	✓	✓
Communication skills	Expressing opinions		✓
	Listenng to others' opinions		✓
Sense of responsibility	Asking and responding		✓
	Performing assigned roles	✓	
	Task completion	✓	
	Commitment to group outcomes	✓	

Based on the indicator mapping in the previous table, each aspect of social skills developed through the complementary characteristics of cooperative and collaborative learning. This mapping served as the basis for constructing the observation instrument used to record students' social behaviors during the learning process. The results of classroom observations are presented in Table 2 to show the actual behaviors that emerged during the implementation of cooperative and collaborative learning.

Table 3. Results of Classroom Observation

Social Skills Aspect	Indicators	Observed behavior
Cooperation skills	Participation in group activities	Students actively joined group discussions and contributed to task completion
	Task distribution	Students shared roles and carried out tasks according to group agreements
	Helping each other	Students provided help to peers and were willing to receive help
Communication skills	Expressing opinions	Students shared ideas or opinions during group discussions
	Listenng to others' opinions	Peserta didik memperhatikan dan menanggapi pendapat teman
	Asking and responding	Students paid attention and responded to their peers' ideas
Sense of responsibility	Performing assigned roles	Students asked questions or gave responses to group ideas
	Task completion	Students carried out the roles assigned within the group
	Commitment to group outcomes	Students completed group tasks on time

Observations conducted during the learning process showed changes in classroom dynamics after the implementation of cooperative and collaborative learning. The teacher formed small learning groups consisting of four to five students with heterogeneous composition based on academic ability and individual characteristics. Each group was given shared tasks that had to be completed collaboratively, such as reading and analyzing narrative texts in Indonesian Language lessons, solving Mathematics problems, or summarizing learning materials.

During these activities, students appeared more active in discussions, sharing ideas, and taking roles within their groups, such as note taker, presenter, or questioner. The teacher acted as a facilitator by guiding discussions, asking questions to support thinking skills, and providing feedback so that group activities stayed aligned with learning objectives. Observation results indicated that the classroom atmosphere became more lively, and students who were previously passive began to show greater interest and engagement in learning activities. Based on observations of students' social skills, a summary of achievement for each indicator is presented in Table 3. The results showed that cooperation skills had the highest percentage compared to other indicators, followed by responsibility and communication skills.

Table 4. Percentage of Students' Social Skills Based on Indicators

Social Skills Indicator	Students (n=25)	Percentage	Category
Cooperation skills	21	85%	Good
Communication skills	19	78%	Good
Sense of responsibility	20	82%	Good

The distribution of students' social skills percentages based on cooperation, communication, and responsibility indicators is presented in Figure 2 in the form of a pie chart.
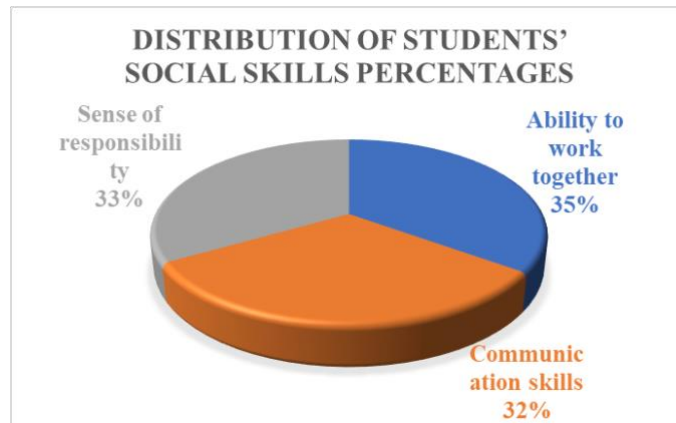
Figure 2. Distribution of Students' Social Skills Percentages Based on Indicators

In addition to observation data, this study also collected data through in depth interviews with the grade IV classroom teacher and several students as key informants. The interviews aimed to explore perceptions and direct experiences related to the implementation of cooperative and collaborative learning approaches in classroom instruction. Interview results with the classroom teacher indicated that the application of cooperative and collaborative learning brought positive changes to the learning process. The teacher explained that learning activities became more varied and were no longer fully teacher centered. Students were seen as more responsible for their own learning process, more confident in expressing opinions, and more respectful of their peers' views during group discussions. The teacher also stated that these approaches helped create a classroom environment that was more active and supportive for learning.

The teacher further mentioned that students showed higher enthusiasm when learning in groups. Students were reported to understand learning materials more easily due to interactions with peers. Explanations from classmates, using simpler language and ways of thinking closer to students' understanding, were perceived to help clarify material that was sometimes difficult to grasp through teacher explanations alone. The interview results with students supported the observation findings. Students explained that group based learning made them feel more comfortable asking questions and joining discussions when they had difficulties understanding the material. One student said indirectly that learning in groups allowed them to ask friends right away when something was unclear and that working together helped tasks to be finished faster. This view reflected how cooperative and collaborative learning supported not only academic understanding but also students' emotional experience during learning activities, especially related to confidence and comfort when interacting with peers.

In addition to observation, the study also collected data through in depth interviews with the grade IV classroom teacher and several students as key informants. These interviews were conducted to explore experiences, perceptions, and direct responses toward the implementation of cooperative and collaborative learning approaches during the learning process. Based on the interview results, the classroom teacher reported that the application of cooperative and collaborative learning brought noticeable changes in classroom practice. The teacher described that learning became more student centered, where students were no longer only passive recipients

of information but were actively involved through discussion and group work. The teacher also mentioned that students showed increased responsibility toward assigned tasks, both individually and within their groups.

The teacher further explained that during learning activities, students appeared more willing to express opinions and share ideas in group discussions. Students who had previously been passive began to show courage to speak and interact with their group members. According to the teacher, this situation reflected a positive change in students' learning attitudes, particularly in terms of self confidence and openness in communication. In addition, teachers assessed that group work-based learning helped students. The teacher also noted that group based learning helped students understand learning materials more effectively. Interaction among students created opportunities for mutual support and shared understanding. The teacher stated that explanations given by peers were often easier for students to understand because they used simpler language and ways of thinking that matched students' levels of comprehension. The teacher added that group work helped students learn to respect different opinions and complete tasks together.

Interview results with students showed responses that were consistent with the teacher's perspective. Students stated that they felt more comfortable and motivated when learning in groups. Group learning provided opportunities for students to ask questions directly to peers when they experienced difficulties in understanding the material, without feeling afraid or embarrassed. Students also mentioned that group work made the learning atmosphere more enjoyable and encouraged them to participate more actively in class activities.

One student shared a direct statement by saying,
"I like learning in groups because I can ask my friends right away when I do not understand. We can work together, so the task is finished faster."

Another student also expressed a similar experience and said,
"When learning in groups, I become more confident to speak and I am not afraid of making mistakes, because I can discuss first with my friends before answering."

These statements indicated that the implementation of cooperative and collaborative learning supported students' understanding of learning materials and created a more comfortable and enjoyable learning experience. Group based learning also contributed to the development of students' social skills, particularly in communication confidence, cooperation, and self confidence when interacting with peers.

DISCUSSION

The research findings indicate that the implementation of cooperative and collaborative learning approaches in grade IV elementary school classrooms contributed clearly to the development of students' social skills. At the data reduction stage, observation and interview results were focused on the main social skills indicators based on Koprowska, (2022), which include cooperation skills, communication skills, and sense of responsibility. In the aspect of

cooperation skills, observation results showed that this indicator reached the highest percentage compared to other social skills indicators. This finding suggests that the cooperative learning structure, which emphasizes task distribution, positive interdependence, and individual accountability, encouraged students to actively engage in group work (Silva et al., 2021; Zhou & Colomer, 2024). Clear role distribution helped students understand their individual responsibilities, so social interaction did not occur randomly but was directed toward achieving shared goals (Puntambekar, 2022). These results align with cooperative learning theory, which explains that structured group work can strengthen social relationships and improve collaborative skills from the elementary school level (Alzubi et al., 2024; Kusumaningsih & Sun, 2025).

In contrast, the aspect of communication skills was found to develop mainly through the application of collaborative learning. Open discussion activities, idea exchange, and opportunities to ask questions and respond to peers' opinions allowed students to develop interpersonal communication skills in a natural way (Puscas et al., 2021). This finding is in line with Liu et al., (2026) who explained that collaborative learning places social interaction at the center of the learning process, so students learn how to express ideas through interaction. The results support the view that collaborative learning plays an important role in creating a dialogic and participatory classroom climate, which supports the development of students' social skills (Mugabekazi et al., 2025).

The aspect of responsibility also showed good achievement, which was mainly influenced by the implementation of cooperative learning. Observation results indicated that students were able to carry out assigned roles, complete tasks on time, and show commitment to group outcomes. This suggests that cooperative learning influenced not only academic processes but also the development of social responsibility attitudes (Silva et al., 2021). From the perspective of social learning theory, learning experiences that require active involvement and shared responsibility can shape prosocial behavior and collective awareness among students (Koutroubas & Galanakis, 2022; Rachmad, 2025).

Interview findings with teachers and students strengthened the observation results. Teachers viewed that the implementation of cooperative and collaborative learning shifted the teacher's role from the center of instruction to a facilitator (Kusin, 2022), allowing students more space to interact and build understanding together (Salmons & Wilson, 2023). Students also stated that group learning made them feel more comfortable asking questions, discussing ideas, and expressing opinions without fear. Overall, these findings show that integrating cooperative and collaborative learning within one learning process supported the optimization of social skills among grade IV elementary school students. Cooperative learning helped build work structure, responsibility, and orderly interaction, while collaborative learning supported active participation and interpersonal communication among students.

CONCLUSION

The implementation of cooperative and collaborative learning approaches in grade IV elementary school classrooms played an important role in building and strengthening students' social abilities through structured and meaningful learning interactions. The integration of these

two approaches allowed learning activities to focus not only on mastering subject content, but also on developing cooperation, communication, and social responsibility. Cooperative learning provided a clear working framework through role distribution and individual responsibility within groups, while collaborative learning opened wider space for dialogue and idea exchange among students. Through this process, classroom learning became more participatory and interactive, and more aligned with the social developmental needs of elementary school students. These findings addressed the research questions by showing that the application of both approaches shaped learning dynamics that supported the improvement of students' social skills in a contextual and ongoing manner. From a theoretical perspective, this study contributed to the discussion of active learning by emphasizing the importance of integrating cooperative and collaborative approaches for social skills development, not only for academic outcomes. From a practical perspective, the findings provide guidance for teachers in managing effective group based learning, and for schools in promoting more collaborative instructional practices. However, this study was limited by the scope of participants, which involved only one class, and by the use of a descriptive qualitative approach, so the generalization of findings remains limited. Future studies are suggested to involve more diverse school contexts, apply mixed methods or experimental designs, and examine the long term effects of cooperative and collaborative learning on students' social and academic development.

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