

Implementing a Collaborative Learning Management Model to Increase Student Engagement in the Classroom

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Abstract :

This study focuses on the application of the collaborative learning model, with the aim of analyzing how teacher dominance, limited facilities, and low student motivation affect the effectiveness of collaborative learning. A qualitative research approach with a case study method is used to explore the internal dynamics that occur in the madrasah environment. Data were collected through in-depth interviews, participatory observations, and document analysis, which were then analyzed using thematic analysis techniques to identify key emerging patterns. The results show that the dominance of teachers in student grouping inhibits the diversity of interactions required for effective collaborative learning. In addition, the limitations of facilities such as cramped classrooms and lack of technological aids exacerbate the situation, while low student motivation, influenced by external factors such as family support, poses an additional challenge in the implementation of this model. The implications of this study underscore the importance of improving teacher training, improving educational facilities, and a more holistic approach that involves families and communities in supporting collaborative learning. This research makes an important contribution to the development of more effective strategies in the implementation of collaborative learning in madrasahs and similar schools in Indonesia.

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INTRODUCTION

Education is one of the main pillars in the development of quality human capital, playing a central role in preparing individuals to contribute effectively in various aspects of social and economic life (Glavič, 2020; Zapata-Cantu & González, 2021; Rusdi et al., 2022). In Indonesia, the challenge to improve the quality of education lies not only in the curriculum or infrastructure (Indrawati & Kuncoro, 2021; Shaturaev, 2021; Wijaya & Khoir, 2022), but also in the learning methods applied in the classroom, which play a crucial role in determining the effectiveness of learning and the achievement of student learning outcomes (Amtu et al., 2020; Yu et al., 2021; Maulidah et al., 2023). One method that is gaining increasing attention is collaborative learning, which is believed to be able to improve student engagement, social skills, and

problem-solving together, which are important skills in today's era of globalization (Aifan, 2022; Alturki & Aldraiweesh, 2023; Norman & Paramansyah, 2024). However, in the context of education in Indonesia, especially in madrasah ibtidaiyah (Chuanchen, 2023; Hasanah & Hefniy, 2023; Hamidah, 2023), the implementation of collaborative learning still faces a variety of complex challenges, including the dominance of teachers in student grouping, limited facilities, and low student motivation (Lenkauskaitė et al., 2020; Anwar et al., 2021; Matee et al., 2023), which significantly affects the successful implementation of this method (Neumann et al., 2021; Benzidia et al., 2021; Ansori et al., 2023). This topic is interesting to study because it touches on the core of the educational challenge in Indonesia: how to create a learning environment that not only teaches knowledge, but also develops cooperation skills and social responsibility in students from an early age.

Collaborative learning is considered essential in the development of 21st century skills that include teamwork, communication, and problem-solving (Kocak et al., 2021; Aifan, 2022; Thornhill-Miller et al., 2023). According to Vygotsky's theory (1978), social interaction plays an important role in the learning process (Kolhar et al., 2021; Alam, 2022; Baber, 2022). Through collaborative learning, students can learn from their peers, which allows *scaffolding*—where students who are better able to help other students understand difficult concepts (Shin et al., 2020; Puntambekar, 2022; Chun & Cennamo, 2022). However, the success of the implementation of this model is greatly influenced by factors such as the role of teachers, the availability of facilities, and student motivation (González-González et al., 2020; Al-Adwan et al., 2021; Huang, 2021). In Indonesia, the dominance of teachers in the classroom often limits the group dynamics that should develop naturally, while the limitations of facilities, especially in semi-urban and rural areas, hinder the optimal implementation of this method (Liang et al., 2020). As such, this research is not only academically important, but also relevant in practical terms for understanding how collaborative learning can be adapted and applied effectively in Indonesia's diverse educational context.

The main problem faced in the implementation of collaborative learning at MI Miftahul Ulum, Lumajang, is the dominance of teachers in student grouping. Groupings that are often based on academic ability or personal proximity hinder the development of students' social and collaborative skills. This leads to homogeneity in the study group, which ultimately limits the dynamics of interaction and learning that should occur. In addition, the limitations of facilities such as narrow classrooms and the lack of technological learning aids are additional obstacles that worsen the situation. Low student motivation, which is often influenced by minimal family support and socioeconomic background, is also a serious challenge that needs to be addressed to improve the effectiveness of collaborative learning.

Several previous studies have explored the challenges and potential of implementing collaborative learning in various educational contexts. For example, research by Johnson, Johnson, & Holubec (2020) examined the effectiveness of collaborative learning in increasing student engagement and found that this method significantly increased student participation in dynamic classes. However, this research was conducted in schools with complete facilities, which may not fully reflect the reality in madrasas in Indonesia.

Another study by Gillies (2021) highlights the importance of the role of teachers in facilitating collaborative learning. This study shows that the success of this learning model is highly dependent on the ability of teachers to manage group dynamics effectively. Although relevant, this study focuses on the context of education in developed countries, so it has not yet accommodated the specific challenges faced by teachers in Indonesia's educational environment, such as resource limitations and the dominance of more traditional teaching cultures.

Research by Kagan & Kagan (2022) discusses grouping techniques in collaborative learning, and concludes that variations in grouping can improve students' social and academic skills. However, the study does not address how these techniques can be applied in conditions where teachers still have full control over group settings, as is the case in many schools in Indonesia.

Although previous research has explored various aspects of collaborative learning, there is a significant gap in the literature that discusses the application of this model in the context of madrasahs in Indonesia, especially related to how teacher dominance and limited facilities can affect the success of collaborative learning. This research seeks to fill this gap by exploring the dynamics of the implementation of collaborative learning at MI Miftahul Ulum, Lumajang, with a special focus on the role of teachers, limited facilities, and student motivation.

The novelty of this research lies in the in-depth exploration of the interaction between teacher dominance, facility limitations, and student motivation in the context of implementing collaborative learning in madrasah ibtidaiyah. This research not only updates the perspective on the challenges in the implementation of collaborative learning in Indonesia, but also offers adaptation models that can be applied in schools with similar conditions. The model focuses on empowering teachers to manage learning groups in a more dynamic and strategic manner, as well as a holistic approach that involves increasing student motivation through family and community support. In addition, this study also suggests strategies for improving educational facilities that can be implemented gradually and realistically, considering the limited resources often faced by madrasahs in Indonesia.

The main objective of this study is to analyze and understand how teacher dominance, facility limitations, and student motivation affect the implementation of collaborative learning at MI Miftahul Ulum, Lumajang. This research is able to provide insights that can be used to develop more effective strategies in the implementation of collaborative learning, which not only increases student engagement, but also optimizes the use of existing resources. The urgency of this research lies in the need to create a more inclusive and adaptive learning model, which is able to answer the unique challenges faced by madrasahs in Indonesia, so as to support the development of students' skills that are more comprehensive and relevant to the demands of the times.

RESEARCH METHOD

This study uses a qualitative type of research with a case study approach. The qualitative approach was chosen because it allows researchers to understand complex phenomena in depth in a specific context, namely the application of a collaborative learning model at MI Miftahul Ulum, Lumajang (Nassaji, 2020; Moradi et al., 2021; Maxwell, 2021).

Case studies were chosen as the primary method because they provide an opportunity to delve into the dynamics that occur in a unique educational environment, so as to reveal nuances that may not be captured by a broader quantitative approach or survey (Welch et al., 2020; Campbell et al., 2020; Alam, 2021). The choice of this method compared to other research methods, such as experiments or surveys, is based on the need to understand the processes, experiences, and perceptions of the respondents directly in real contexts, which is difficult to achieve through a more structured approach.

The data collection techniques in this study were carried out through in-depth interviews, participatory observations, and document analysis (Rutakumwa et al., 2020). In-depth interviews were conducted involving 10 teachers, 5 students from each class (grades IV, V, and VI), and the head of the madrasah, who were selected purposively to obtain varied perspectives. The total number of respondents was 25 people. Participatory observation was carried out for three months at the research site, namely at MI Miftahul Ulum, which is located at Jl. KH. Ahmad Dahlan No. 15, Sumberwuluh Village, Candipuro District, Lumajang Regency, East Java. This location was chosen because it has characteristics that are relevant to the research objectives, namely as a madrasah with a semi-urban background and typical challenges faced by educational institutions in the area. The reason for choosing this location is also related to the availability of access and the relationship that has been established between researchers and the school, which makes it easier to collect data.

The data analysis technique used in this study is thematic analysis, which allows researchers to identify, analyze, and report on important patterns or themes that arise from the data collected (Peel, 2020). Data from interviews, observations, and documents were analyzed iteratively, starting with the transcription of interviews and recording of observation results. Furthermore, the data is encoded to identify key themes that are relevant to the research. This technique was chosen because of its flexibility in handling diverse qualitative data, as well as its ability to uncover the deep meaning of respondents' experiences and perceptions. The validity of the data is maintained through triangulation methods, namely by comparing findings from interviews, observations, and documents to ensure consistency and accuracy of interpretation. With this approach, the results of the research are expected to provide comprehensive and in-depth insights into the application of collaborative learning at MI Miftahul Ulum, Lumajang.

FINDINGS AND DISCUSSION

The results of this study revealed a number of important findings that provide new insights into the factors that affect the effectiveness of the implementation of the collaborative learning model at MI Miftahul Ulum. These findings are related to the dominance of teachers in group settings, limited support facilities, and low student motivation, which all have a significant impact on the teaching and learning process. To better understand the implications of the results of this study, the following is a summary of the various aspects that have been researched.

Teacher's Dominance in Study Group Settings

The grouping of students dominated by teachers can negatively impact the effectiveness of collaborative learning in the classroom. The study shows that teachers tend to group students based on social closeness or academic ability, which prioritizes short-term efficiency over broader collaborative skill development. This approach often results in homogeneous groups, limiting students' interactions with peers of different backgrounds or abilities. As a result, students miss out on opportunities to develop social and intellectual abilities through more diverse group dynamics. In addition, time and resource constraints also encourage teachers to opt for simpler and faster, albeit less optimal grouping methods to encourage active participation and the development of collaborative skills essential for 21st century learning. These findings underscore the importance of more in-depth teacher training in group management and the need for reform of approaches in classroom management to support a more inclusive and effective learning process.

Based on interviews with several teachers and students at MI Miftahul Ulum, it was found that the study group arrangement is still dominated by the teacher's decision. One of the teachers at the madrasah said, "*I often group students based on their proximity to each other, because if they are familiar, they will complete the (I_G) task faster.*" This statement suggests that the grouping approach still relies heavily on short-term convenience and efficiency, without considering the potential for the development of broader collaborative skills.

One of the students in class V also revealed, "*I am always with my close friends in every group assignment. We rarely work with friends from other groups (I_S).*" This shows that students do not get enough opportunities to interact with various classmates who have different abilities and backgrounds, which can actually enrich their learning experience.

Furthermore, the head of the madrasah added, "*We understand the importance of variety in grouping, but due to the large number of students in a single class and time constraints, teachers tend to choose the fastest method (I_KS).*" This statement illustrates the limitations in time and resource management that cause teachers to prefer methods that are easy to implement even though they may not be optimal for the development of students' collaborative skills.

The results of this study show that the dominance of teachers in the study group setting at MI Miftahul Ulum inhibits the effectiveness of collaborative learning, a finding that seems to contrast with some previous studies. Research by Gillies (2021) highlights that the success of collaborative learning is highly dependent on the role of teachers in facilitating group dynamics, but with an approach that supports heterogeneous interactions and positive interdependence between students. In contrast, in MI Miftahul Ulum, teacher-dominated groupings tend to create homogeneous groups that reduce students' opportunities to learn from their peers with different backgrounds and abilities. In addition, a study by Kagan & Kagan (2022) underscores the importance of variety in groupings to improve students' social and academic skills, a strategy that is under-implemented in these madrasahs due to time and resource constraints that force teachers to opt for simpler methods.

This suggests that while a dominant teacher approach can make classroom management easier, this strategy is not in line with internationally recognized principles of collaborative learning, which emphasize the importance of more dynamic and diverse student interactions to achieve optimal learning outcomes. Thus, this study emphasizes the need to revise approaches in the management of study groups to create a more inclusive and effective educational environment, in line with the recommendations of the latest global literature.

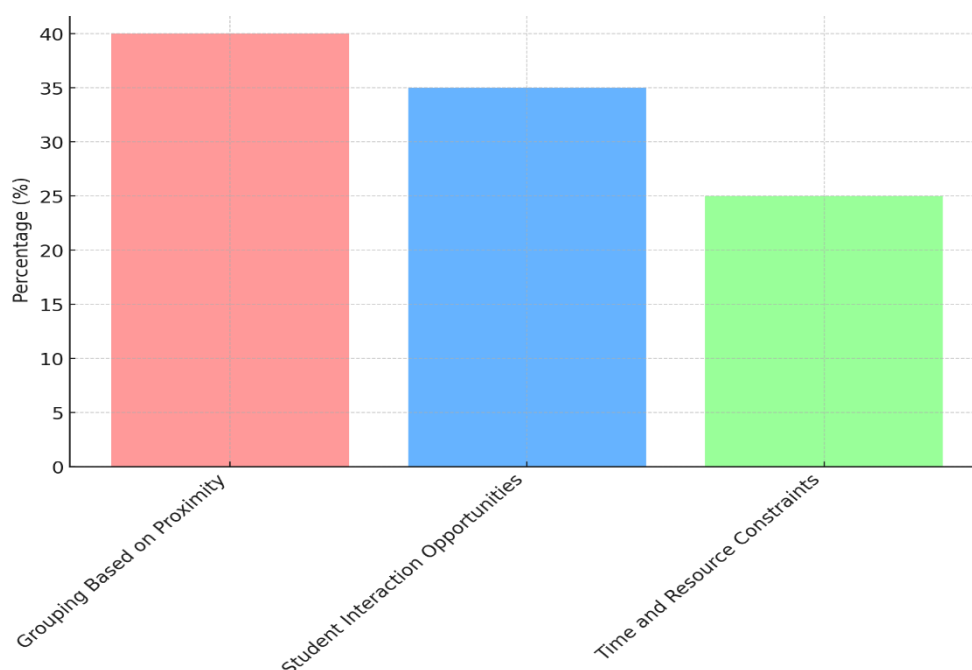


Figure 1. Aspects Affected by Teacher Dominance in Grouping

Figure 1 entitled "Aspects Influenced by Teacher Domination in Grouping" shows that teacher dominance affects the grouping of students based on social proximity the most, with an impact of 40%. This limits the diversity of student interactions and reduces the effectiveness of collaborative learning. The opportunity for student interaction was also significantly affected (35%), suggesting that teachers' control over groupings could inhibit more diverse interactions. Meanwhile, time and resource constraints had a smaller impact (25%), suggesting that although these factors affected the grouping, the effect was not as large as the other two aspects. This figure highlights the need for a more flexible approach to grouping to support more effective and inclusive learning.

Lack of Availability of Supporting Facilities at MI Miftahul Ulum

The study found that narrow classrooms limited seating arrangements, reducing the comfort and effectiveness of group discussions. In addition, the limited number of textbooks forces students to share learning resources, which not only hinders collaboration but also reduces the opportunity to understand the material thoroughly. Limited access to technology, such as projectors that must be used alternately between classes, further exacerbates the situation by limiting the use of visual aids that should improve student interaction and understanding.

This reflects the need for increased investment in educational facilities to support more interactive and participatory learning methods, which are essential in preparing students for educational challenges in the modern era.

One of the main obstacles faced by MI Miftahul Ulum in implementing the collaborative learning model is the limitation of facilities. Based on interviews with several related parties, it was found that narrow classrooms and lack of supporting equipment are significant obstacles. One teacher stated, *"Our classroom is too small, so it is difficult to arrange tables and chairs so that students can work in groups comfortably. As a result, students often have to sit close together, which actually reduces the effectiveness of the discussion (I_G)."* This statement describes how the physical limitations of the classroom can limit student interaction in group activities.

A grade VI student revealed, *"Sometimes we have to share textbooks, because the number of books available is not enough. This makes it difficult to work together in groups, because we don't have enough material to read together (I_S)."* These difficulties suggest that the lack of basic educational resources, such as textbooks, is a significant obstacle in supporting effective collaborative learning.

The head of the madrasah also stated, *"We have projectors, but their use has to be alternated with other classes, and often the available time is not enough for each class. This limits our ability to use technology in collaborative learning (I_KS)."* Limited access to technology is another problem faced by this madrasah, where technology that should be able to be used to support interactive learning cannot be maximized due to limited facilities.

Table 1. Barriers to the Implementation of Collaborative Learning

Aspects	Key findings
Narrow Classroom	Narrow classrooms limit table and chair settings, reducing the effectiveness of group discussions.
Lack of Textbooks	Students often have to share books due to limited numbers, hindering collaboration in groups.
Limited Access to Technology	The use of projectors must alternate between classes, limiting the use of technology in learning.

The table above summarizes three main aspects that are obstacles to the implementation of collaborative learning at MI Miftahul Ulum due to limited facilities. First, narrow classrooms are a significant obstacle, where limited table and chair arrangements reduce the effectiveness of group discussions, as students cannot work comfortably in groups. Second, the lack of textbooks causes students to have to share, which hinders collaboration and understanding of the material evenly among group members. Third, limited access to technology, such as the use of projectors that must alternate between classes, limits the use of technology to support interactive learning. The limitations of this facility as a whole reduce the effectiveness of implementing the collaborative learning model in this madrasah.

The above findings highlight the limitations of supporting facilities at MI Miftahul Ulum in the implementation of collaborative learning, causing debate when compared to the findings of previous studies. For example, research by Johnson et al. (2020) revealed that the existence of adequate facilities, such as spacious classrooms and good access to technology, is a key factor in improving the effectiveness of collaborative learning.

With a positive impact on student interaction and learning outcomes. In contrast, a study conducted by Zhang and Lu (2021) emphasizes that even with limited facilities, innovative pedagogical strategies can help overcome these barriers, such as the creative use of classrooms and the efficient integration of technology, to still support collaborative learning. However, the findings of this study show that the limitations of facilities at MI Miftahul Ulum, such as narrow classrooms and lack of technology, have significantly hampered the implementation of collaborative learning strategies, contrary to Zhang and Lu's arguments. Furthermore, research by Li and Qian (2021) also states that adequate facilities are essential to ensure maximum student engagement, especially in an interactive and collaborative learning environment. Based on this contrast, research at MI Miftahul Ulum reinforces the view that while pedagogical strategies are important, supportive infrastructure remains a foundation that cannot be ignored in an effort to implement effective collaborative learning models, especially in educational contexts that demand intensive interaction among students.

Low Student Motivation at MI Miftahul Ulum

Student motivation at MI Miftahul Ulum was also found to be one of the factors that affect the effectiveness of collaborative learning. Interviews with some students showed that their motivation to learn tends to be low, mainly due to external factors such as lack of family support. One of the fourth-grade students revealed, *"My parents are more focused on working in the rice fields, so they don't care much about my schoolwork. I also often feel lazy to do group assignments (I_OT)."* This suggests that a student's family background and social environment can affect their level of motivation in participating in learning activities.

One teacher added, *"Many students come to school only because of obligation, not because they really want to learn. They tend to be passive in group activities, and this is a challenge for us as teachers (I_G)."* This statement underscores the challenges faced by teachers in encouraging active student participation, especially when students do not have intrinsic motivation to learn.

The head of the madrasah also stated, *"We try to reward students who are active in group activities, but the influence is still limited because many students prefer to play outside of school rather than engage in learning activities (I_KS)."* This statement shows that although there have been efforts to increase student motivation through incentives, the results are still inadequate due to a lack of support from the home environment and the surrounding community.

The results of this study, which highlights the low motivation of students at MI Miftahul Ulum, which is caused by the lack of family support and social environment, raises interesting discussions when compared to previous studies. For example, research by Ryan and Deci (2020) emphasizes that intrinsic motivation is a key factor in academic success, and that emotional support and parental involvement play an important role in fostering that motivation. In contrast, at MI Miftahul Ulum, the lack of parental involvement that is more focused on daily work outside of their child's education results in students being less motivated to be actively involved in collaborative learning. Other research by Lemos and Verissimo (2021) suggests that external rewards, such as incentives, can influence student motivation, but their impact is often limited if not supported by strong intrinsic motivation.

This is in line with the findings at MI Miftahul Ulum, where madrasah efforts to increase motivation through the provision of incentives have not yielded significant results because students are more interested in activities outside of school than learning activities. In addition, a study by Wang and Eccles (2020) stated that the social environment, including support from peers and the surrounding community, can strengthen students' motivation to learn. However, at MI Miftahul Ulum, the support seems to be less than optimal, which worsens the motivation situation of students. Thus, this study reinforces the view that although external incentives can play a role, family support and social environment remain crucial factors in shaping students' learning motivation, which ultimately has an impact on the effectiveness of collaborative learning.

The results of the study at MI Miftahul Ulum, Lumajang, show that the implementation of the collaborative learning model faces several significant challenges related to the dominance of teachers in group settings, limited support facilities, and low student motivation. The dominance of teachers in student grouping is seen as an attempt to manage the classroom more efficiently, but this approach hinders the development of collaborative skills that should be one of the main goals of this learning model. Groupings based on students' proximity or academic abilities tend to result in homogeneous groups, which can limit diverse interactions and opportunities to learn from different points of view.

Limitations of facilities, such as narrow classrooms, lack of textbooks, and limited access to technology, are also the main obstacles in the implementation of collaborative learning in this madrasah. Inadequate facilities reduce the effectiveness of learning and make students feel uncomfortable when collaborating. This shows that investment in better educational infrastructure is urgently needed to support a more interactive and participatory learning model.

Low student motivation, which is influenced by external factors such as lack of family support, is also a major challenge in the implementation of collaborative learning. Despite efforts from the school to reward and encourage active student participation, the results are still limited. This indicates the need for a more holistic approach that involves families and communities in the educational process to increase student motivation.

Here is a table summarizing the main findings based on the results of the interviews:

Table 2. Aspects of the findings

Aspects Studied	Key findings
Teacher Dominance in Grouping	Teachers tend to group students based on proximity or ability.
Facility Limitations	Narrow classrooms and lack of textbooks hinder learning.
Low Student Motivation	Low family support affects student motivation

From the results of this study, it is recommended to consider several steps to increase the effectiveness of the implementation of the collaborative learning model. First, there needs to be an effort to train teachers in managing student clusters in a more dynamic way and based on the development of collaborative skills. Second, improvements in educational facilities, including larger classrooms and better access to technology and teaching materials, are urgently needed.

Third, there is a need for a more comprehensive approach that involves families and communities to increase student motivation in learning. With these steps, it is hoped that the collaborative learning model can be applied more effectively at MI Miftahul Ulum, Lumajang, and have a significant positive impact on student involvement in the learning process.

CONCLUSION

This study revealed that one of the most important findings is the influence of teacher dominance, limited facilities, and low student motivation on the effectiveness of collaborative learning at MI Miftahul Ulum. The lesson that can be drawn from this study is the importance of creating a more inclusive and collaborative learning environment by minimizing teacher dominance, improving support facilities, and strengthening students' intrinsic motivation through family and community support. The study also updates the scientific perspective by showing that in the context of madrasah education in semi-urban areas, the success of collaborative learning is highly dependent on the integration of various elements, ranging from pedagogical approaches to infrastructure and social support. The qualitative methods used, through in-depth case studies, make a significant contribution to understanding the dynamics of education in this uniquely challenging environment.

However, this study has some limitations, especially in the scope of cases and locations limited to one madrasa in Lumajang, so the results may not be fully representative for schools in other areas with different conditions. In addition, the study has not considered gender variations, age, and other research methods, such as quantitative surveys, to get a broader and more comprehensive picture. Therefore, more inclusive follow-up research, which accommodates gender variations, student ages, and uses more diverse research methods, is urgently needed to produce a more effective and targeted educational policy basis in implementing collaborative learning models in various educational contexts in Indonesia.

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