

The Effectiveness of Educational-Based Wordwall Media on Students' Collaboration Skills in Social Studies Learning

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ABSTRACT. The development of 21st-century education requires students to possess not only academic competencies but also collaborative skills, which have become essential in the learning process. However, preliminary observations at SMP Negeri 23 Sigi revealed that eighth-grade students' collaboration skills in Social Studies learning were still relatively low. This condition was indicated by limited student participation in group discussions, minimal interaction among students, and the suboptimal use of learning media that could encourage active engagement. Therefore, technology-based learning media such as Wordwall are considered a promising alternative for creating a more interactive, engaging, and collaborative learning environment. This study aimed to analyze the effectiveness of educational-based Wordwall media in improving eighth-grade students' collaboration skills in Social Studies learning at SMP Negeri 23 Sigi, to examine students' collaboration skills during the learning process, and to describe the integration of Wordwall media into Social Studies instruction. The study employed a descriptive qualitative approach with data collected through observations, interviews, and documentation. The research participants consisted of Social Studies teachers and eighth-grade students at SMP Negeri 23 Sigi. Data were analyzed through data reduction, data presentation, and conclusion drawing. The findings revealed that the use of educational-based Wordwall media was effective in enhancing students' collaboration skills. Students became more actively involved in discussions, demonstrated productive teamwork, respected their peers' opinions, shared responsibilities, and showed improvements in communication and group decision-making skills. Furthermore, the integration of Wordwall created a more enjoyable and interactive learning environment, encouraging optimal student engagement in Social Studies. The implications of this study suggest that Wordwall can serve as an effective digital learning medium to support the development of students' collaboration skills and improve the quality of Social Studies instruction in schools.

Keywords: Wordwall, educational learning media, collaboration skills, Social Studies learning, junior high school students.



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INTRODUCTION

Education plays a very important role in human life because through education, individuals are able to develop their potential, knowledge, and skills that are useful in everyday life. Education is also understood as a learning process that enables students to develop spiritual values, self-control, intelligence, noble character, and social skills needed in social life, (Fajri et al., 2025; Maqfirah et al., 2026; Zahra et al., 2024). The development of education in the modern era requires students to possess 21st-century skills, not only academic abilities but also social skills such as communication, creativity, critical thinking, and collaboration (Ayu et al., 2025; Badawi,

2025; Harahap, 2024; Nasution et al., 2026; Ridlo et al., 2026). Collaboration skills have become one of the essential skills in the learning process because through cooperation, students are able to interact, discuss, exchange ideas, and solve problems together (R. Andini & Syam, 2025; Hanipah, 2023). Collaboration skills also help students learn to appreciate others' opinions, share responsibilities, and build positive social relationships during the learning process (Astari & Cirebon, 2025).

In Social Studies learning, collaboration skills play a very important role because Social Studies essentially examines social life and human relationships (Safitri et al., n.d.) Social Studies learning requires students to be active in discussions, group work, and the exchange of ideas among students. Through collaboration skills, students are able to work together in understanding learning materials, solving social problems, and building positive social interactions (Alwi, 2025; Krisna & Pandiangan, 2026). In addition, collaboration skills also help students develop attitudes of tolerance, responsibility, and solidarity in everyday life. Therefore, Social Studies learning needs to be designed interactively in order to optimally improve students' collaboration skills (Arizka & Arlina, 2023; Asyam et al., 2025; Indasari et al., 2024; Kabalmay et al., 2025; Mumtahana et al., 2026). However, learning conditions in schools still indicate that students' collaboration skills have not developed optimally. Some students are still unable to actively participate in group work and discussions during the learning process. Learning activities are still dominated by conventional teaching methods, causing interaction among students to be less effectively developed. As a result, students' communication, cooperation, and problem-solving abilities remain low. These conditions demonstrate the need for more innovative learning strategies and media to improve students' collaboration skills in the classroom. This is in line with the study conducted by (Insan et al., 2024; Mirzat, 2025) which states that Social Studies learning has strong relevance in shaping students' social attitudes such as cooperation, responsibility, tolerance, and empathy through collaborative learning activities and social interaction within the school environment.

One of the learning media that can be used to improve students' collaboration skills is Wordwall media. Wordwall is an interactive digital platform that provides various types of educational games such as quizzes, crossword puzzles, matching pairs, random wheels, and other game-based activities to support the learning process. The use of Wordwall can create a more interesting, enjoyable, and interactive learning atmosphere, encouraging students to participate more actively in learning activities (Am & Sholihah, 2025; Husni et al., 2026; Mursidah & Nadhir, 2025). In addition, Wordwall also enables students to work collaboratively in groups to complete games or tasks assigned by the teacher (Awaluddin et al., 2024; Hadi et al., 2024; Rahmi et al., 2025; Taqiyah et al., 2025; Utsman et al., 2026). Learning media play an important role in helping teachers deliver learning materials to students. Learning media not only function as teaching aids, but also as tools that can increase students' interest, attention, and involvement in the teaching and learning process. The use of interesting and interactive learning media can help students understand the material delivered by the teacher more easily (Yusnaldi et al., 2025). Therefore, the use of technology-based learning media such as Wordwall has become one of the effective alternatives for improving the quality of learning in schools (Badrudin et al., 2025; Islamiah, 2025; Kartiko & Rohmania, 2025; Madkan et al., 2025; Muslim et al., 2025)

The use of Wordwall in Social Studies learning is considered highly relevant because Social Studies requires learning activities that involve social interaction, discussion, and cooperation among students (Rohmah et al., 2025). Wordwall is able to present Social Studies material in the form of engaging educational games, making students more focused and enthusiastic in participating in the learning process. The use of this media also helps teachers create a less monotonous learning atmosphere and encourages students to be more active in learning activities (Sari, 2021). In addition, the use of Wordwall also has a positive impact on students' collaboration skills. Through interactive games and quiz activities, students are encouraged to discuss, cooperate, and help one another in completing the assigned tasks. Wordwall also enables

teachers to measure students' understanding directly through game results that appear in real time (Journal & Ijtis, 2020; Masitah et al., 2024). Thus, the use of Wordwall can help create Social Studies learning that is more effective, interactive, and oriented toward students' active participation (Hartati et al., 2024). Based on the results of preliminary observations at SMP Negeri 23 Sigi, the collaboration skills of eighth-grade students in Social Studies learning were still considered low because the learning process was still dominated by lecture methods and the use of interactive learning media had not been optimized. These conditions caused students to be less active in discussion and group work activities, resulting in social interaction and cooperation skills not developing optimally. In addition, there were still several students who obtained scores below the Minimum Mastery Criteria (KKM) in Social Studies subjects. These problems indicate the need for learning innovation through the use of interactive media that can improve students' collaboration skills. Therefore, the researcher is interested in conducting a study on the use of educational-based Wordwall media in improving students' collaboration skills in eighth-grade Social Studies learning at SMP Negeri 23 Sigi. This study is expected to contribute to the development of more innovative, interactive Social Studies learning that is capable of increasing students' involvement in the learning process.

METHOD

This study employed a qualitative research design with a descriptive approach. According to Creswell (2018), qualitative research is used to explore and understand social phenomena by examining participants' experiences, perspectives, and interactions within their natural settings. This approach was selected because the study focused on understanding the effectiveness of educational-based Wordwall media in improving students' collaboration skills during Social Studies learning activities. The research was conducted from February to March 2025 at SMP Negeri 23 Sigi, Central Sulawesi, Indonesia. The school was selected because Social Studies teachers had integrated Wordwall media into classroom instruction, providing opportunities to examine its implementation and impact on students' collaborative learning behaviors.

The research informants consisted of one Social Studies teacher and Grade VIII students who actively participated in learning activities using Wordwall media. Informants were selected through purposive sampling based on their direct involvement in the learning process. Data were collected using three techniques: observation, interviews, and documentation. Classroom observations were conducted during Social Studies lessons to identify students' collaborative behaviors, including participation in group discussions, communication among peers, task sharing, responsibility, and respect for others' opinions. Semi-structured interviews were conducted with the teacher and selected students to obtain in-depth information regarding their experiences and perceptions of using Wordwall media. Documentation data included lesson plans, photographs of learning activities, students' learning products, and other supporting documents related to the implementation of Wordwall in the classroom.

Data analysis followed the interactive model developed by Miles, Huberman, and Saldaña, which consists of data condensation, data display, and conclusion drawing/verification. During the data condensation stage, information obtained from observations, interviews, and documentation was selected, coded, and categorized according to the research focus. The organized data were then presented descriptively to identify patterns related to the development of students' collaboration skills during learning activities. Finally, conclusions were drawn and continuously verified throughout the research process to ensure consistency and accuracy. To enhance the trustworthiness of the findings, data triangulation was employed by comparing information obtained from different sources and data collection techniques, thereby ensuring the validity and credibility of the research results.

RESULT AND DISCUSSION

Result

The results of the study concern the effectiveness of using educational-based Wordwall media in improving students' collaboration skills in Social Studies learning at SMP Negeri 23 Sigi. The research data were obtained through classroom observations, interviews with teachers and students, and documentation during the learning process using Wordwall media. The research findings are presented based on empirical evidence related to students' collaboration skills during learning activities. Based on classroom observation results, the use of Wordwall media was able to create a more interactive and enjoyable learning atmosphere. Students appeared more enthusiastic and active in participating in Social Studies learning activities compared to the conventional learning methods previously used by the teacher. During group activities, students actively discussed, exchanged opinions, and collaborated in solving questions provided in the Wordwall games. Most students demonstrated confidence in expressing their opinions and were directly involved in group activities throughout the learning process.

The results of interviews with the Social Studies teacher indicated that the use of Wordwall media had a positive influence on students' collaboration skills. The teacher explained *"Since Wordwall was implemented in Social Studies learning, students have become more active in discussing and working together. They are more willing to share ideas, help one another answer questions, and participate in group activities than before."*

Further observation results showed improvements in several indicators of students' collaboration skills, including the ability to cooperate, communication among group members, responsibility, and respect for others' opinions. Students were able to divide tasks within their groups, listen to their peers' opinions, and complete assignments collaboratively. The classroom atmosphere became more active as students interacted more frequently during learning activities using Wordwall. In addition, the use of Wordwall media helped reduce students' boredom because the learning process was presented through engaging educational games. Students felt that learning through Wordwall was more enjoyable and increased their learning motivation. One student stated: *"Learning with Wordwall feels like playing while learning, so we are more enthusiastic about participating in lessons and working together with our classmates."*

Several students also reported that the educational game activities helped them communicate and collaborate more easily with their group members. These activities encouraged students to become more confident in expressing their opinions and actively participating in the learning process. During the implementation of Wordwall media, students were observed actively participating in group discussions, collaborating to answer questions, and demonstrating high levels of enthusiasm throughout the learning process. The documentation indicated that Social Studies learning using Wordwall media was able to create a more dynamic, interactive, and student-centered learning environment compared to previous learning methods, which tended to be monotonous and teacher-centered.



Figure 1. Collaborative Activities of Grade VIII Students in Social Studies Learning Using Educational-Based Wordwall Media

The collaborative activities of eighth-grade students in Social Studies learning using educational-based Wordwall media demonstrated an increase in student engagement during the learning process. The results of the study showed that the use of Wordwall media was able to create more interactive learning activities compared to previous learning methods that were still dominated by lecture-based instruction. During group learning activities, students appeared more active in discussions, exchanged ideas with one another, and collaborated in completing the educational games assigned by the teacher. These activities indicate that Wordwall media not only helped students understand Social Studies material, but also trained their collaboration, communication, and responsibility skills in group work. Based on the observation results of the study, students were more active in participating in learning activities, both during group discussions and while completing educational games presented through Wordwall. Students were able to cooperate with their group members in answering questions, discuss to determine the correct answers, and help one another in completing the learning tasks assigned by the teacher. The use of Wordwall media also encouraged students to become more confident in expressing their opinions and providing responses to the results of group discussions.

Classroom observation data revealed that students became more active in group discussions during the implementation of educational-based Wordwall media. Students were observed exchanging ideas, discussing possible answers, and encouraging their peers to participate in learning activities. This pattern was different from the initial classroom condition, where only a few students actively contributed during discussions. The use of Wordwall created opportunities for students to engage in collaborative tasks that required communication and collective decision-making.

The interview results further supported these observations. One Social Studies teacher stated that "students became more enthusiastic and actively participated in discussions when Wordwall was integrated into classroom activities." The teacher further explained that students who were usually passive appeared more confident in expressing their opinions during collaborative tasks. Similarly, several students reported that the game-based activities made learning more enjoyable and encouraged them to cooperate with their peers in completing learning tasks. Documentation data also confirmed the increased level of student interaction. Photographs and classroom records showed students actively discussing questions, sharing responsibilities, and working together to solve learning tasks. The documentation further demonstrated that students were more engaged during collaborative activities and showed greater participation compared to previous learning sessions.

In addition, the learning atmosphere appeared more interactive and enjoyable compared to previous learning methods that were still dominated by lecture-based instruction. Through the interactive game and quiz features provided by Wordwall, students became more enthusiastic and motivated to participate in the Social Studies learning process. Social interaction among students also developed more effectively because students were directly involved in group learning activities. The results of the study indicated that the use of Wordwall media not only improved students' collaboration skills but also enhanced communication, responsibility, and respect for others' opinions during the learning process. Therefore, educational-based Wordwall media is effective as an innovative learning medium for creating active, collaborative, and student-centered Social Studies learning.

Discussion

The findings of this study indicate that educational-based Wordwall media contributed positively to the improvement of students' collaboration skills in Social Studies learning at SMP Negeri 23 Sigi. The improvement was reflected in students' ability to communicate, cooperate, share responsibilities, and respect the opinions of their peers during group learning activities. These findings suggest that the effectiveness of Wordwall lies not only in its function as a digital learning medium but also in its capacity to create opportunities for meaningful social interaction among students. Through game-based activities, students were encouraged to discuss, negotiate, and make decisions collectively, which are essential components of collaborative learning.

This finding can be explained through the collaborative learning theory proposed by Johnson and Johnson (2014), which emphasizes that learning outcomes improve when students actively interact and work together toward shared goals. The observation and interview results demonstrated that students became more engaged in group discussions and showed greater responsibility in completing tasks. This indicates that Wordwall facilitated positive interdependence among students, allowing them to learn not only from the teacher but also from their peers. Therefore, the improvement in collaboration skills observed in this study was not merely the result of technology use but of the collaborative learning processes supported by the technology.

The findings also support the argument of (Hartati et al., 2024; Wahyudi, 2024), who stated that interactive learning media enhance student engagement by combining visual elements, direct participation, and active learning experiences. However, while previous studies mainly focused on learning motivation and academic achievement, the present study extends existing knowledge by demonstrating that Wordwall also plays an important role in fostering collaboration skills. This contribution is significant because collaboration is recognized as one of the key competencies required in twenty-first-century education. Thus, the present study provides empirical evidence that educational game-based learning can support not only cognitive development but also social skill development.

Furthermore, the findings highlight the importance of the teacher's role in maximizing the effectiveness of educational technology. Consistent with (M. Andini et al., 2024; Aqil et al., 2025) teachers in this study acted as facilitators who designed collaborative learning experiences rather than merely delivering information. The success of Wordwall implementation was influenced by the teacher's ability to organize interactive activities, encourage student participation, and create a supportive learning environment. This finding implies that the effectiveness of educational technology depends not only on the technology itself but also on how it is pedagogically integrated into classroom learning.

The findings of this study also indicate that the effectiveness of Wordwall can be understood from the perspective of constructivist learning theory, which emphasizes that knowledge is actively constructed through interaction and experience. Through collaborative educational games, students were provided with opportunities to explore concepts, exchange ideas, and develop understanding collectively. Rather than acting as passive recipients of information, students became active participants who contributed to the learning process through discussion and problem-solving activities. This learning condition supports the notion that meaningful learning occurs when students are directly involved in constructing knowledge through social interaction.

Moreover, the findings suggest that the integration of Wordwall helped address several challenges commonly encountered in Social Studies learning. Previous classroom conditions were characterized by limited student participation and low levels of interaction among learners. The introduction of Wordwall transformed these conditions by providing a learning environment that encouraged active engagement and collaboration. The competitive yet enjoyable nature of educational games motivated students to participate more actively, while collaborative tasks ensured that learning remained focused on teamwork rather than individual achievement alone.

An additional contribution of this study lies in its emphasis on collaboration as a learning outcome. Many previous studies examining the use of Wordwall have focused primarily on academic achievement, learning motivation, or student engagement. In contrast, the present study highlights how digital learning media can contribute to the development of interpersonal and social competencies. This perspective is particularly important because current educational frameworks emphasize the development of twenty-first-century skills, including communication, collaboration, creativity, and critical thinking. Therefore, the findings provide further support for the integration of technology-enhanced learning strategies that promote both cognitive and social development.

Furthermore, the findings indicate that the implementation of educational-based Wordwall media aligns with the current direction of educational transformation, which emphasizes the integration of technology and the development of twenty-first-century competencies. The rapid advancement of digital technology has encouraged schools to adopt innovative learning approaches that not only focus on knowledge acquisition but also promote students' active participation and social development. In this context, Wordwall serves as an effective instructional medium that combines technological innovation with collaborative learning principles. The interactive features available within the platform allow students to engage in meaningful learning experiences while simultaneously developing communication and teamwork skills (Budiartini et al., 2025; Harahap, 2024; Hermita et al., 2025; Lingga & Rambe, 2026). Consequently, learning activities become more relevant to the needs of contemporary learners who are increasingly familiar with digital environments. Another important aspect identified in this study is the relationship between collaborative learning and student motivation. The findings suggest that students were more motivated to participate in learning activities when instructional content was presented through engaging and interactive educational games. Increased motivation encouraged students to become more involved in group discussions, contribute ideas more confidently, and actively cooperate with their peers. This finding supports previous educational research emphasizing that motivation plays a crucial role in determining the quality of student participation and learning outcomes. Therefore, the effectiveness of Wordwall in improving collaboration skills may also be influenced by its ability to enhance students' intrinsic motivation toward learning activities. The findings further reveal that students' increased participation was closely related to the sense of enjoyment created by the learning activities. Enjoyable learning experiences have been widely recognized as an important factor influencing student engagement and learning outcomes. In this study, Wordwall provided a learning atmosphere that reduced boredom and increased students' enthusiasm for participating in classroom activities. As students became more engaged, they also became more willing to communicate, cooperate, and contribute to group discussions. This relationship indicates that emotional engagement may serve as an important mechanism through which educational technology enhances collaboration skills (Munir & Solihah, 2026).

In addition, the findings provide important practical implications for the implementation of Social Studies learning in junior high schools. The integration of educational-based Wordwall media demonstrates that digital learning tools can be effectively utilized to create student-centered learning environments that encourage collaboration and active participation (Ceballos et al., 2026; Mumtahana et al., 2026). In the context of Social Studies education, where discussion, social interaction, and collective problem-solving are essential components of learning, Wordwall offers opportunities for students to engage more meaningfully with both the learning material and their peers. The findings suggest that incorporating interactive educational technologies into classroom instruction can help teachers address challenges related to student engagement and limited participation.

Another aspect that deserves attention is the role of social interaction in supporting meaningful learning experiences. Social Studies education aims not only to develop knowledge but also to foster social awareness, responsibility, and interpersonal skills. The collaborative activities facilitated through Wordwall enabled students to practice these competencies in authentic

classroom situations. Students learned how to listen to different perspectives, negotiate solutions, and work toward common objectives. Moreover, students were observed supporting one another, respecting different viewpoints, and working together to achieve shared goals. Such experiences are particularly valuable because they encourage the development of democratic values, tolerance, mutual respect, and collective responsibility. Consequently, the benefits of Wordwall extended beyond academic learning and contributed to broader educational goals related to character development and social competence. The findings also suggest that the successful use of educational technology requires continuous teacher creativity and professional development. Teachers need to possess not only technological knowledge but also pedagogical competence to design meaningful learning experiences. The effectiveness observed in this study was largely influenced by the teacher's ability to integrate Wordwall into collaborative learning activities that encouraged interaction and participation. Therefore, professional development programs focusing on digital pedagogy are essential to help teachers maximize the benefits of technology-enhanced learning and improve the overall quality of classroom instruction (Arifin et al., 2023; Atstsaury et al., 2024; Sabariah et al., 2025; Siagian et al., 2025; Tihabsah et al., 2024). These findings have important implications for teachers and schools seeking to improve the quality of Social Studies instruction. The results suggest that the successful implementation of educational technology requires careful instructional planning and meaningful integration into classroom activities. Teachers need to design learning experiences that encourage interaction, collaboration, and active participation rather than simply using technology as a presentation tool. When integrated appropriately, Wordwall can become a valuable resource for promoting collaborative learning and supporting the development of essential competencies required in contemporary education.

Overall, this study contributes to the growing body of literature on digital learning media by providing evidence that Wordwall can be utilized as an effective tool for developing students' collaboration skills in Social Studies learning. Unlike previous studies that primarily examined motivation and learning outcomes, this study demonstrates the potential of Wordwall to facilitate social interaction, collaborative problem-solving, and active participation, thereby supporting the development of essential twenty-first-century skills.

CONCLUSION

This study found that the use of educational-based Wordwall media was effective in improving students' collaboration skills in Social Studies learning at SMP Negeri 23 Sigi. The main finding of this research indicates that Wordwall not only increased students' participation in learning activities but also strengthened essential collaboration indicators, including communication, cooperation, responsibility, task sharing, and respect for peers' opinions. An important finding emerging from this study is that the effectiveness of Wordwall was not solely determined by its technological features, but by its ability to create meaningful social interactions through game-based learning activities. Students became more actively engaged in discussions, demonstrated greater confidence in expressing ideas, and showed higher levels of responsibility in completing collaborative tasks. As a result, the learning environment became more interactive, enjoyable, and student-centered.

Academically, this study confirms previous findings that interactive digital learning media can enhance student engagement and participation in the learning process. However, this study extends the existing literature by demonstrating that Wordwall contributes not only to learning motivation and academic engagement but also to the development of collaboration skills as one of the key competencies required in twenty-first-century education. Furthermore, this study highlights the importance of integrating educational technology with collaborative learning principles, showing that the pedagogical use of Wordwall can facilitate social interaction, collaborative problem-solving, and active participation in Social Studies learning. Despite these contributions, this study has several limitations. The research was conducted in a single school with a limited number of participants and employed a qualitative descriptive approach, which may

restrict the generalizability of the findings to broader educational contexts. Therefore, future research is recommended to involve larger samples, different school settings, and more diverse educational contexts. Further studies may also employ mixed-methods or experimental approaches to provide stronger empirical evidence regarding the effectiveness of Wordwall in developing collaboration skills and other twenty-first-century competencies. Such research is expected to generate more comprehensive findings and provide stronger recommendations for educational policy and classroom practice.

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