



Integrating interactive learning media and social digital literacy in social studies learning: A classroom action research study

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ABSTRACT

This study investigated the integration of interactive learning media and social digital literacy into Social Studies instruction to address students' limited classroom participation and their difficulties in critically evaluating digital information. The study employed Classroom Action Research (CAR) involving 67 Grade VII students at SMP Negeri 4 Pare. The research was conducted in two cycles, each comprising planning, action, observation, and reflection. Interactive learning media were integrated with social digital literacy activities to promote active participation, collaborative discussion, critical evaluation of digital information, and responsible engagement with social issues. Data were collected through learning achievement tests, student worksheets, classroom observations, and teacher reflection notes and were analyzed descriptively across the two action cycles. The findings showed consistent improvements from Cycle I to Cycle II. The mean Social Studies achievement score increased from 72.4 to 83.1, while the proportion of students demonstrating high classroom participation increased from 25% to 55%. Similarly, the proportion of students achieving a high level of social digital literacy increased from 25% to 50%. Classroom observations further indicated greater student confidence in expressing opinions, responding to peers, collaboratively examining social issues, and critically engaging with digital information. These improvements were supported by reflective adjustments to instructional activities between cycles. The findings suggest that integrating interactive learning media with social digital literacy can provide a participatory and reflective learning environment that supports students' academic learning, classroom engagement, and responsible use of digital information in Social Studies education.

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INTRODUCTION

Social Studies education plays a strategic role in developing students' social awareness, interpersonal competence, and civic responsibility (Munadi et al., 2024; Safitri et al., 2024). Rather than functioning merely as a subject through which knowledge is transmitted, Social Studies provides an educational context in which students learn to become responsible, critically minded, and socially competent members of society (Rohmah et al., 2025). Through Social Studies learning, students are encouraged to develop the social awareness and analytical skills necessary to understand and respond critically to social and political issues within their immediate environments. Accordingly, high-quality Social Studies education contributes to the development of social harmony, democratic values, and civic competence, which are important dimensions of social and national development (Wahdania et al., 2024). From a broader social perspective, Social Studies education also supports

the development of civic competencies and democratic dispositions required for participation in a pluralistic society (Banks, 2006; Sapriya, 2017).

The rapid development of digital technology has substantially transformed the social and learning environments in which students interact, communicate, and access information. Students now participate not only in physical social environments but also in digital spaces where information circulates rapidly and interactions extend beyond geographical boundaries (Robi'ah, 2021). This transformation presents both opportunities and challenges for Social Studies education (Aljanazrah et al., 2022; Quaicoe et al., 2023). On the one hand, students have access to an increasingly diverse range of digital resources and opportunities for collaboration beyond the classroom. Interactive digital resources, including multimedia simulations, digital storyboards, and collaborative platforms, can facilitate the understanding of abstract social concepts, promote inquiry-based learning, and support project-based activities (Eswaran, 2024; Maspul, 2024; Vaithianathan et al., 2024). Such learning opportunities can contribute to students' critical thinking and problem-solving skills and strengthen their ability to connect conceptual knowledge with social realities (Ain & Muqaromah, 2024; Rochmattulloh et al., 2022).

On the other hand, increased access to digital information introduces important educational challenges. Students may encounter misinformation, biased or low-quality content, and simplified representations of complex social issues. They may also experience difficulties in distinguishing credible from unreliable sources, interpreting information critically, and using digital resources ethically and responsibly. These challenges highlight the importance of social digital literacy in Social Studies education. Social digital literacy involves not only the technical ability to access and use digital information but also critical evaluation, ethical awareness, responsible communication, and meaningful participation in digital social environments (Pratama et al., 2025; Yuliana et al., 2025). Developing these competencies is particularly relevant to Social Studies because students are expected to examine social issues from multiple perspectives, evaluate information critically, and participate responsibly in discussions concerning social life.

Interactive learning media provide one pedagogical avenue for integrating these competencies into classroom learning (Entriz & Puspitasari, 2025; Riskawati et al., 2025). Interactive media can create opportunities for students to participate actively, collaborate with peers, examine social issues, and communicate their interpretations rather than merely receive information. In this context, interactive media function not only as instructional resources but also as environments for communication, shared meaning-making, and social learning. When integrated with social digital literacy activities, such media can provide opportunities for students to critically evaluate digital content, articulate their perspectives, engage with different viewpoints, and relate digital information to real-world social issues. Consequently, students can move beyond being passive consumers of digital information toward becoming active and responsible participants in the learning process.

Nevertheless, the presence of digital technology in the classroom does not automatically result in meaningful learning. Effective integration requires deliberate pedagogical design that aligns the use of interactive media with learning objectives and the development of social digital literacy (Arifin et al., 2024; Dongxue & Nagappan, 2024; Thelma et al., 2024). Students require structured opportunities to assess digital information critically, interpret its relevance to social issues, and use it responsibly. Without such pedagogical integration, digital learning may become fragmented and disconnected from students' social contexts, thereby limiting its potential to foster social awareness, civic responsibility, and critical engagement (Munadzifah & Fradana, 2025; Tia & Ruhimat, 2022).

Previous studies have demonstrated the potential contribution of interactive media and digital literacy to students' critical thinking, classroom participation, and learning. Digital learning media have been associated with the development of higher-order thinking skills and students' readiness to engage with learning activities (Ain & Muqaromah, 2024), while digital literacy enables students to evaluate information sources critically and participate more actively in discussions (Yuliana et al., 2025). These findings indicate that interactive learning media and digital literacy can contribute to both cognitive and participatory dimensions of learning. However, these two components are often addressed as separate educational concerns. Less attention has been given to how interactive learning media can be pedagogically integrated with social digital literacy within the specific context of Social Studies classrooms and how this integration develops through iterative

classroom practice. This issue is particularly important because Social Studies requires students not only to acquire disciplinary knowledge but also to interpret social information critically, communicate responsibly, and engage constructively with social issues.

Addressing this pedagogical challenge requires an approach that enables instructional practices to be implemented, observed, evaluated, and progressively refined within the actual classroom context. Classroom Action Research (CAR) provides an appropriate framework because it involves iterative cycles of planning, action, observation, and reflection aimed at improving teaching practices and student learning (Creswell & Poth, 2016; Faliyandra et al., 2022; Nur'aini et al., 2024). Through these iterative cycles, teachers can identify classroom learning problems, implement instructional interventions, examine students' responses, and modify subsequent learning activities based on reflective evidence (Patty & Que, 2023; Rahayu & Saskia, 2025). Such reflection is particularly important when integrating interactive learning media and social digital literacy because instructional strategies must remain responsive to students' needs, classroom dynamics, and local social contexts. Effective implementation therefore requires appropriate digital resources, curriculum-aligned activities, student-centered learning, collaboration, critical thinking, problem solving, and assessment strategies capable of capturing both academic learning and social digital literacy development (Gusta et al., 2024; Judijanto et al., 2024; Saputra et al., 2024).

Accordingly, integrating interactive learning media with social digital literacy has the potential to support Social Studies learning beyond academic achievement alone. It can provide students with opportunities to examine social, environmental, political, and economic issues critically, participate in collaborative discussions, evaluate digital information, and develop responsible forms of digital participation. Teachers play an important role in this process by selecting digital resources that are relevant to students' social environments, facilitating critical inquiry and collaborative discussion, and providing guidance for evaluating information and communicating respectfully in digital and classroom contexts. Through continuous reflection and instructional refinement, these practices can become more responsive to classroom realities while remaining connected to the broader goals of civic engagement, social awareness, and responsible digital citizenship.

Therefore, this study aims to examine how the integration of interactive learning media and social digital literacy through Classroom Action Research can improve students' Social Studies learning outcomes, classroom participation, and social digital literacy. By examining changes across iterative action cycles, the study seeks to provide empirical and pedagogical insights into how interactive digital learning can be systematically integrated with social digital literacy within an authentic Social Studies classroom context.

METHOD

This study employed Classroom Action Research (CAR) using a descriptive-reflective approach to improve Social Studies learning through the integration of interactive learning media and social digital literacy. CAR was selected because it provides a systematic and iterative framework for identifying classroom problems, implementing instructional actions, observing learning processes, and developing improvements through reflection (Creswell & Poth, 2016; Faliyandra et al., 2022; Nur'aini et al., 2024). The study was conducted in two action cycles, each comprising four interconnected stages: planning, action, observation, and reflection (Patty & Que, 2023; Rahayu & Saskia, 2025). Findings from the first cycle were used to refine the instructional strategies implemented in the second cycle.

The study involved 67 Grade VII students at SMP Negeri 4 Pare during Social Studies lessons. The class was purposively selected based on preliminary observations indicating limited student participation, insufficient use of interactive learning media, and limited critical engagement with digital information. The Social Studies teacher served as the classroom practitioner, while the researcher and a collaborating observer systematically documented the learning process and contributed to reflection at the end of each cycle.

During the planning stage, the researcher and teacher collaboratively developed lesson plans, selected relevant digital resources, prepared interactive learning activities and student worksheets, and developed observation and assessment instruments. The intervention integrated Social Studies

content with social digital literacy activities designed to encourage inquiry, collaborative discussion, critical evaluation of digital information, and responsible communication. During the action stage, students engaged with interactive learning media and digital information related to social issues through inquiry, group discussion, collaborative problem solving, and evaluation of the relevance and credibility of digital content.

Observation was conducted concurrently with each action cycle using structured observation sheets. The observer documented students' participation, classroom interactions, learning behaviors, responses to interactive media, and engagement with social digital literacy activities. Student worksheets and learning products were also examined to identify how students interpreted and evaluated digital information. At the end of each cycle, the researcher and teacher reflected on classroom observations, student work, learning achievement, and reflective notes to identify strengths, remaining difficulties, and areas for instructional improvement. The first-cycle reflection informed adjustments to learning activities, teacher guidance, collaborative arrangements, and the use of interactive media in the second cycle.

Data were collected through classroom observations, student worksheets and learning products, learning achievement tests, documentation, and teacher/researcher reflective notes. The data were analyzed descriptively and comparatively across the two cycles. Quantitative learning achievement data were summarized using descriptive statistics and compared across cycles, while observation records, student work, and reflective notes were analyzed to identify changes in students' participation and social digital literacy. Social digital literacy was examined through students' ability to access relevant digital information, evaluate its credibility and relevance, interpret information in relation to social issues, communicate their interpretations responsibly, and use digital information appropriately in collaborative learning.

The effectiveness of the intervention was evaluated based on three complementary indicators: improvement in students' active participation, development of social digital literacy, and improvement in Social Studies learning outcomes across the action cycles. These indicators represented the behavioral, social-digital, and cognitive dimensions of learning, respectively, and were reviewed throughout the action-reflection process to determine the progress achieved through the integration of interactive learning media and social digital literacy.

RESULTS AND DISCUSSION

The findings demonstrate progressive improvements in students' Social Studies learning outcomes, classroom participation, and social digital literacy across the two action cycles. Rather than representing isolated changes, these outcomes developed alongside the reflective modifications made between Cycle I and Cycle II. The results therefore illustrate how the integration of interactive learning media and social digital literacy contributed to changes in the cognitive, behavioral, and digital-literacy dimensions of students' learning.

Results

Students' Social Studies Learning Outcomes

Students' learning outcomes improved from Cycle I to Cycle II, as presented in [Table 1](#). The average Social Studies score increased from 72.4 in Cycle I to 83.1 in Cycle II, representing an increase of 10.7 points, or approximately 14.8% relative to the Cycle I average. The proportion of students achieving mastery also increased by 20 percentage points, from 65% to 85%. These findings indicate that the improvement was evident not only in the class average but also in the proportion of students who achieved the expected level of learning mastery.

Table 1. Students' Social Studies Learning Outcomes Across Action Cycles

Cycle	Average Score	Students Achieving Mastery (%)
Cycle I	72.4	65%
Cycle II	83.1	85%

The improvement can be interpreted in relation to the instructional changes introduced across the action cycles. Interactive learning media enabled Social Studies concepts and social issues to be presented in more accessible and engaging forms, while collaborative activities provided students with opportunities to discuss, interpret, and evaluate information rather than merely receive it. This interpretation is consistent with previous studies reporting that interactive and digital learning media can support academic achievement and deepen students' engagement with learning content (Amri et al., 2025; Rochmattulloh et al., 2022). Similarly, Ahunaya et al. (2025) emphasized the potential of multimedia-supported learning to facilitate the visualization and exploration of learning content while encouraging inquiry and problem solving.

Importantly, the improvement between the two cycles should be understood within the reflective nature of Classroom Action Research. The changes observed in Cycle II occurred after instructional reflection and modification following Cycle I. Thus, the findings suggest that the value of interactive media lies not simply in introducing digital resources into the classroom, but in progressively adapting their pedagogical use to students' learning needs.

Students' Learning Participation

Changes were also observed in students' levels of classroom participation across the two cycles (Table 2).

Table 2. Students' Learning Participation Across Action Cycles

Cycle	Low Participation	Moderate Participation	High Participation
Cycle I	30%	45%	25%
Cycle II	10%	35%	55%

The proportion of students categorized as having high participation increased from 25% in Cycle I to 55% in Cycle II, an increase of 30 percentage points. At the same time, the proportion of students with low participation decreased from 30% to 10%. This shift indicates a broader movement from relatively passive participation toward more active involvement in classroom learning.

Classroom observations further indicated that students became increasingly willing to participate in discussions, express their opinions, respond to peers, and collaborate in learning activities. This development is particularly relevant to Social Studies because learning in this field involves not only the acquisition of conceptual knowledge but also opportunities to examine social issues, consider different perspectives, and communicate interpretations with others.

The integration of social digital literacy provided an additional context for participation by requiring students to engage critically with digital information rather than use digital resources merely as sources of content. Students were encouraged to examine information, discuss its relevance, communicate their interpretations, and participate responsibly in collaborative activities. These findings are consistent with previous research highlighting the contribution of digital and interactive learning environments to student engagement and participation (Ernawati et al., 2023; Tarigan et al., 2023).

The pattern across the two cycles also reinforces the importance of pedagogical adaptation. The increase in active participation did not occur simply because digital media were available; rather, interactive media were embedded within inquiry, discussion, and collaborative learning activities. This suggests that the pedagogical organization surrounding technology is an important component in transforming digital resources into meaningful opportunities for classroom participation.

Development of Social Digital Literacy

The development of students' social digital literacy was examined through their ability to access, evaluate, interpret, communicate, and use digital information responsibly during Social Studies learning. The results are presented in Table 3.

Table 3. Students' Social Digital Literacy Levels Across Action Cycles

Cycle	Low	Moderate	High
Cycle I	35%	40%	25%
Cycle II	15%	35%	50%

The proportion of students demonstrating a high level of social digital literacy increased from 25% in Cycle I to 50% in Cycle II, while the proportion categorized as low decreased from 35% to 15%. This distribution indicates a clear shift toward higher levels of critical and responsible engagement with digital information during the learning process.

The improvement was reflected in students' increasing ability to identify relevant digital information, consider its credibility, relate information to the social issues being discussed, and communicate their interpretations within collaborative learning activities. In this sense, social digital literacy extended beyond technical competence in accessing digital resources. It involved students' capacity to engage with digital information critically, socially, and responsibly within the context of Social Studies learning.

These findings are consistent with previous studies emphasizing the role of digital literacy in supporting critical thinking, information evaluation, and learning outcomes in Social Studies and related educational contexts (Fadli et al., 2024; Panjaitan et al., 2023; Rahmasari et al., 2025; Yuliana et al., 2025). The present findings further suggest that social digital literacy can be meaningfully developed when digital information is embedded in authentic social issues and accompanied by opportunities for discussion, evaluation, and collaborative interpretation.

Progress Across the Action Cycles

Taken together, the three dimensions demonstrate a consistent pattern of improvement from Cycle I to Cycle II. The average Social Studies score increased from 72.4 to 83.1, high classroom participation increased from 25% to 55%, and the proportion of students demonstrating high social digital literacy increased from 25% to 50%.

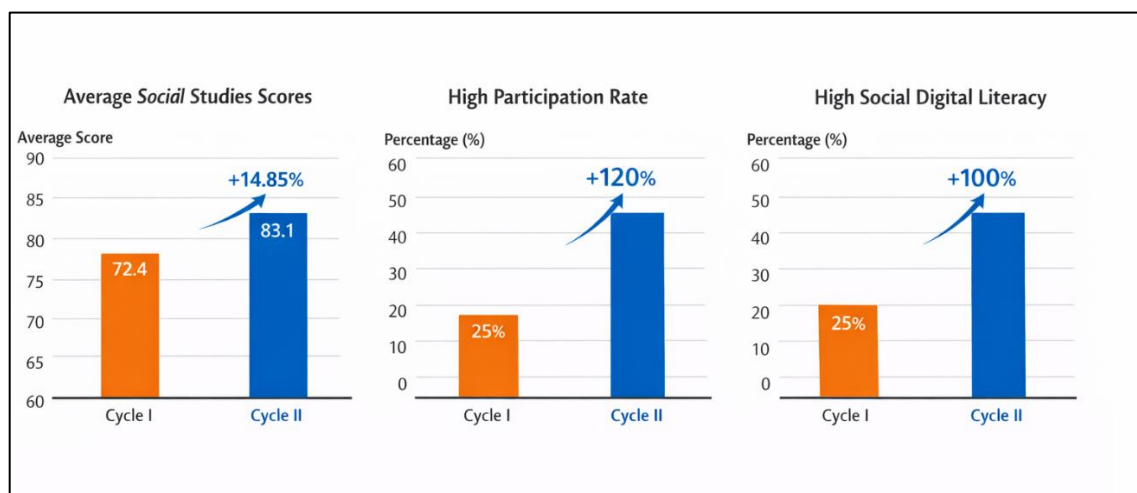


Figure 1. Comparison of Social Studies learning outcomes, high student participation, and high social digital literacy across Cycle I and Cycle II

These parallel changes suggest that cognitive achievement, classroom participation, and social digital literacy developed as interconnected dimensions of the learning process. Interactive media provided resources for exploring Social Studies content, while social digital literacy activities encouraged students to evaluate and interpret digital information collaboratively. As students became more actively involved in these activities, they also demonstrated stronger engagement with the learning content and more responsible use of digital information.

From the perspective of Classroom Action Research, the progression between cycles is particularly important. Cycle I provided evidence of students' initial responses and remaining learning difficulties, while reflection on these findings informed pedagogical adjustments in Cycle II. The stronger outcomes observed in the second cycle therefore illustrate the central function of the action-reflection process: instructional improvement emerged through the systematic identification of classroom needs and subsequent refinement of teaching practices.

Overall, the findings indicate that integrating interactive learning media with social digital literacy was associated with improvements across cognitive, behavioral, and social-digital

dimensions of Social Studies learning. The contribution of the intervention appears to lie not merely in the use of digital technology itself, but in the way digital resources were pedagogically structured around inquiry, critical evaluation, discussion, collaboration, and responsible communication. This reinforces the importance of positioning technology as part of an intentional learning design rather than as an isolated instructional tool.

Discussion

The findings of this study indicate that the integration of interactive learning media and social digital literacy (SDL) was associated with progressive improvements in three interrelated dimensions of Social Studies learning: learning outcomes, classroom participation, and students' social digital literacy. The improvement observed from Cycle I to Cycle II suggests that the instructional approach became more effective as it was refined through the iterative process of planning, action, observation, and reflection. More importantly, the findings suggest that the educational value of digital technology in Social Studies lies not merely in providing access to interactive resources, but in embedding these resources within learning activities that encourage critical inquiry, collaboration, responsible information use, and reflection.

This interpretation is particularly relevant to the broader purposes of Social Studies education. Social Studies is expected to extend beyond the acquisition of subject knowledge by developing students' capacity to understand social issues, engage with different perspectives, and participate responsibly in society. In this respect, the integration of SDL into interactive learning provides a connection between academic learning and the development of civic competencies. [Johnson and Morris \(2010\)](#) conceptualize citizenship education as involving not only knowledge but also values, skills, and dispositions, while [Banks \(2006\)](#) emphasizes the importance of preparing students to participate effectively in diverse democratic societies. In increasingly digital social environments, these competencies also require students to engage with online information critically and responsibly, consistent with [UNESCO's \(2021\)](#) emphasis on responsible participation and citizenship in contemporary societies.

The differences observed between the two action cycles provide further insight into how this integration developed in practice. During Cycle I, students experienced difficulties adapting to a more interactive and digitally mediated learning environment. Some students remained hesitant to engage with digital content, particularly when activities required critical analysis, judgment, discussion, and the expression of their own perspectives. Rather than indicating the ineffectiveness of the intervention, these initial difficulties may reflect a transitional stage in which students were becoming accustomed to new forms of participation and greater responsibility for their learning. Similar adaptation challenges have been identified in the early implementation of digitally supported learning, particularly when students are expected to move from relatively passive engagement toward more interactive and self-directed learning practices ([Kinasih et al., 2025](#)). [Hobbs \(2011\)](#) similarly emphasizes that digital and media literacy does not develop automatically through exposure to technology; students require structured opportunities and instructional guidance to learn how to access, analyze, evaluate, and communicate information effectively.

Following reflection on Cycle I, pedagogical adjustments implemented in Cycle II were accompanied by clearer improvements in students' engagement with the learning process. Students became more confident in using interactive learning media, exploring digital resources, participating in discussions, and collaborating with peers. This pattern highlights an important pedagogical point: the contribution of interactive media appears to depend not simply on the availability of technology, but on how the technology is incorporated into purposeful learning activities. When digital resources were connected to inquiry, discussion, and collaborative problem solving, students had greater opportunities to become active participants in constructing meaning rather than passive recipients of information.

The integration of SDL appears to have played an important role in this process. Students were encouraged not only to retrieve information but also to examine its relevance, evaluate its content, discuss different interpretations, and use digital information appropriately within the context of Social Studies. This represents a broader conception of digital literacy that extends beyond

operational or technical competence. Previous studies have similarly emphasized the importance of critical engagement with digital information and the capacity to evaluate and use information responsibly (Azhar et al., 2024; Aziizah et al., 2025; Vodā et al., 2022). The findings are also consistent with research highlighting the relationship between digital literacy, critical thinking, information evaluation, and responsible engagement in digital environments (OECD, 2019; Yuliana et al., 2025). Thus, the development observed across the two cycles suggests that SDL can be meaningfully incorporated into Social Studies when digital information becomes an object of inquiry, evaluation, discussion, and responsible communication rather than merely a source of instructional content.

Another important finding concerns the development of students' classroom participation and social interaction. Interactive and collaborative learning activities provided opportunities for students to communicate their ideas, respond to peers, negotiate different perspectives, and work collectively on social issues. Such learning experiences are consistent with previous research demonstrating that interactive and collaborative approaches can facilitate students' engagement and interpersonal interaction (Alzubi et al., 2024; Wahyudi et al., 2025; Wanudyastuti et al., 2025). In the present study, classroom observations indicated that students became increasingly willing to participate in discussions, negotiate ideas with peers, and collaborate in addressing problems presented through the learning materials.

These changes are particularly meaningful in the context of Social Studies because participation and collaboration are not merely instructional behaviors; they are also closely related to the social and civic competencies that the subject seeks to develop. Opportunities to discuss social issues, consider alternative viewpoints, and solve problems collaboratively may help students practice mutual respect, shared responsibility, and constructive dialogue. These competencies are relevant to the development of social awareness and civic participation in plural societies (Banks, 2006; Rochmattulloh et al., 2022). Accordingly, the improvement in classroom participation observed in this study should not be interpreted solely as increased classroom activity, but also as evidence of students' growing involvement in socially oriented learning processes.

From a Classroom Action Research perspective, the progression from Cycle I to Cycle II also demonstrates the pedagogical importance of systematic reflection. The first cycle functioned not only as an implementation stage but also as a diagnostic opportunity through which difficulties in student engagement and instructional delivery could be identified. Reflection on these observations informed modifications to subsequent learning activities, allowing the teacher to respond more closely to students' needs in Cycle II. This iterative process is consistent with the principles of action research, in which planning, action, observation, and reflection are interconnected processes directed toward the improvement of educational practice (Creswell & Poth, 2018; Kinasih et al., 2025). The findings therefore underscore that instructional improvement emerged not from a single application of interactive media, but from the continuous refinement of how those media and SDL activities were organized and facilitated.

The findings also offer a broader pedagogical implication. Effective integration of interactive learning media and SDL requires alignment among technology, learning objectives, classroom activities, and the competencies that students are expected to develop. Simply introducing digital tools into a classroom does not necessarily generate meaningful learning. Teachers need to select resources that are relevant to the Social Studies content, design tasks that require students to evaluate and discuss information, facilitate productive peer interaction, and provide sufficient scaffolding as students develop greater independence in navigating digital information. In this sense, the teacher remains central to digitally supported learning, although the role shifts from primarily delivering information toward designing, facilitating, monitoring, and reflecting on students' learning experiences.

At the same time, the findings should be interpreted within the methodological boundaries of this Classroom Action Research. The study was conducted within a specific classroom context and focused on changes across two action cycles. Consequently, the observed improvements should primarily be understood as evidence of instructional development within this particular setting rather than as evidence of a universally generalizable causal effect. Further research across different schools, student populations, and longer implementation periods would be useful for examining

whether similar patterns emerge in other educational contexts. Future studies could also employ more detailed measures of social digital literacy and student engagement to investigate which components of the integrated approach contribute most strongly to the observed changes.

Taken together, this study suggests that the integration of interactive learning media and social digital literacy can support a learning environment in which cognitive achievement, active participation, critical engagement with digital information, and socially responsible interaction develop in parallel. The central contribution of the intervention therefore lies not in the use of digital technology itself, but in the pedagogical integration of technology with inquiry, collaboration, critical evaluation, and reflective teaching. Within Social Studies education, such an approach provides a potentially meaningful way of connecting subject-matter learning with the broader development of students as critical, responsible, and participatory members of an increasingly digital society.

CONCLUSION

This study concludes that the integration of interactive learning media and social digital literacy (SDL) within Classroom Action Research supported progressive improvements in students' Social Studies learning outcomes, classroom participation, and social digital literacy. Across the two action cycles, the average learning achievement score increased from 72.4 to 83.1, the proportion of students demonstrating high classroom participation increased from 25% to 55%, and the proportion achieving a high level of social digital literacy increased from 25% to 50%. These improvements were accompanied by greater student engagement in discussion, collaboration, critical evaluation of digital information, and responsible communication. The progression from Cycle I to Cycle II further indicates that these outcomes were associated not simply with the use of digital media, but with the continuous refinement of instructional practices through planning, action, observation, and reflection.

The findings highlight that meaningful technology integration in Social Studies requires interactive media to be pedagogically connected with inquiry, collaboration, critical evaluation, and responsible engagement with digital information. This approach can provide teachers with a practical framework for simultaneously supporting academic learning, active classroom participation, and the development of competencies needed for responsible participation in digital society. However, because the study was conducted within a specific classroom context and involved two action cycles, the findings should be interpreted primarily as evidence of instructional improvement within this setting. Future research should examine the approach across different schools, student populations, and longer implementation periods to further investigate its applicability and sustainability.

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