



Digital-Based Social Studies Learning Practices and Opportunities for Creative and Innovative Student Action: A Case Study at MTs Almaarif 02 Singosari

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Abstract

Background of study: Digital technologies can broaden the visual and participatory possibilities of social studies learning. However, a single-site qualitative study can examine practices and perceptions that may create opportunities for creative and innovative action rather than establish character formation.

Aims and scope of paper: This study examines the planning, implementation, and evaluation of digital-based social studies learning at MTs Almaarif 02 Singosari and its potential to support creative and innovative student action.

Methods: A bounded single-case study was conducted in May 2025 with seven informants: the madrasah principal, vice principal for curriculum, one social studies teacher, and four Grade VIII students. Data were collected through seven semi-structured interviews, one nonparticipant classroom observation lasting two lesson periods, and relevant documents. Analysis involved condensation, thematic display, verification, and source and technique triangulation.

Result: Triangulated evidence identified three patterns. Planning connected familiar digital tools with visualization, communication, feedback, and student production. Implementation combined presentations and videos with information searches, discussions, and digital projects, although students showed different levels of technical readiness. Evaluation combined online quizzes, infographics, and presentations, indicating situational experimentation, idea organization, and varied presentation rather than longitudinal character change.

Conclusion: Digital-based social studies learning may provide contextual opportunities for creative and innovative action when tools have clear pedagogical purposes, students receive appropriate guidance, and assessment indicators are explicit. The findings are limited to one case, one brief observation, a small informant group, uneven digital literacy and access, and no longitudinal character measurement.

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INTRODUCTION

The development of digital technology has shifted the orientation of learning in schools from a process centered on delivering material to a more interactive, collaborative, and student-centered process. This shift has become increasingly pronounced since the Industrial Revolution 4.0, Society 5.0, and the post-COVID-19 pandemic era, when technology is no longer positioned merely as a tool but has become a crucial part of learning design. Today's education emphasizes more than just mastery of knowledge; it also needs to develop critical, creative, communicative, collaborative, and adaptive thinking skills (Khasanah et al., 2025; Mukmin et al., 2024). In this context, digital-based learning is a relevant approach because it can provide a learning experience that is more flexible, visual, and closer to students' lives (Celsia Ditha Rahmani et al., 2025; Nasution, 2022; Setyawati et al., 2024).

Digital-based learning is not only about the use of technological devices, but also about how teachers design learning experiences that encourage students to actively seek information, process knowledge, and produce work. Through digital media, students can access a wider range of learning resources, understand material through visual and audiovisual displays, and participate in more engaging learning activities (Chen et al., 2026; M et al., 2025). (Tranggono et al., 2023) explains that technological developments in education can influence how students obtain information and shape interaction patterns in learning. In line with this, (Indah Khairany et al., 2024) emphasized that learning strategies in the digital era need to be directed so that students are not only recipients of information, but also actively involved in the learning process.

In learning Social Sciences (IPS), the use of digital technology has strong relevance because IPS not only studies social, economic, historical, geographical and cultural concepts, but also trains students to critically understand the phenomena of social life (Aisyah et al., 2024; Sulianta, 2025). Social studies material is often related to dynamic social events, requiring learning media that can present a real, visual, and easy-to-understand context. The use of digital media such as interactive PowerPoint presentations, learning videos, digital quizzes, Google Forms, WhatsApp Groups, infographics, and thematic video projects can help students understand social studies material more concretely. This type of learning not only strengthens cognitive aspects but also fosters the courage to express ideas, the ability to collaborate, and creativity in presenting ideas (Dang et al., 2025; Widodo et al., 2023).

The link between digital learning and character development is crucial because education aims to produce not only academically intelligent students but also students with positive character. Innovative and creative traits are two crucial aspects that need to be developed in 21st-century learning (I Putu Sriartha et al., 2024; Setiono & Kurniasih, 2024). Innovative character is evident in students' ability to discover new ideas, use technology to solve problems, and generate valuable alternative solutions. Meanwhile, creative character is evident in students' ability to produce work, formulate original ideas, and express understanding through various forms of learning products. In this context, digital-based learning can provide a space to develop both character traits through exploratory activities, digital projects, discussions, and technology-based evaluations (Firdian & Rahmelina, 2021; Ledoh et al., 2025; Lestari et al., 2024).

In Indonesia, the Ministry of Primary and Secondary Education Regulation No. 1 of 2026 on Process Standards provides an official benchmark for learning processes that respond to developments in science, technology, and social dynamics (Ministry of Primary and Secondary Education of the Republic of Indonesia, 2026). In this study, the regulation is used only to explain the institutional relevance of purposeful digital learning. It is not treated as evidence that the use of technology automatically improves learning outcomes or forms student character; those propositions must be examined empirically within the research setting.

Preliminary field access and documentary review in May 2025 identified a computer laboratory, school internet/Wi-Fi access, LCD projectors, and classrooms used for digitally supported instruction. The classroom observation record and learning documents showed the use of PowerPoint presentations, educational videos, Google Forms, WhatsApp Groups, and digital project assignments in social studies. Although these facilities were available, teacher and observation evidence also indicated uneven access to projectors and unstable internet connectivity. These

characteristics made the madrasah an information-rich case for examining how digital learning was organized and experienced under both enabling and constraining conditions.

Despite these contextual opportunities, the implementation of digital-based learning at MTs Almaarif 02 Singosari was reported to face differences in students' digital literacy, limited instructional time, teacher readiness, device and internet constraints, and the risk that technology use could become task completion without substantive learning. Therefore, the present study examines digital learning through three bounded dimensions: teacher planning, classroom implementation, and evaluation practices. The study does not assume that these practices produce character change; instead, it investigates the observable activities and participant perceptions that may indicate opportunities for innovative and creative action.

Several previous studies have discussed digital-based learning and character education. (Akhwani & Wulansari, 2021) shows that a digital-based character education approach can be an alternative in instilling character values through learning activities that utilize technology. (Irwansyah Suwahyu et al., 2023) found that a digital learning model based on character education can be applied to encourage student engagement and strengthen character formation in the learning process. In the context of social studies learning, (Siregar & Sumantri, 2024) explains that the use of digital media can support the integrated social studies learning process by presenting material that is more engaging and easier to understand. In line with this, (Zafira et al., 2024) emphasized that digital learning media can be used as a social studies learning strategy to increase student engagement in understanding social material in a more contextual way. However, studies specifically linking digital-based learning in social studies with the development of innovative and creative character in students in the madrasah context still need to be strengthened.

This gap is important because prior studies have largely emphasized the usefulness of digital media or character-oriented digital learning, while providing less contextual explanation of how planning, classroom enactment, assessment, and constraints interact in a madrasah social studies setting. The present study therefore contributes a bounded account of the conditions under which digital tools are used as instructional representations, communication channels, feedback mechanisms, and student-production media.

This study aims to analyze the planning, implementation, and evaluation of digital-based social studies learning at MTs Almaarif 02 Singosari and to interpret how observed practices and informant perceptions indicate potential opportunities for innovative and creative student action. Specifically, it asks: (1) how teachers design digitally supported social studies learning; (2) how digital tools are used and experienced during classroom and project activities; and (3) how evaluation practices identify creativity- and innovation-related indicators without treating digital products as direct proof of character formation.

METHOD

Research Design and Case Boundaries

This study employed a descriptive, bounded single-case study. The case was bounded by one madrasah, Grade VIII social studies learning, the processes of planning, implementation, and evaluation, and fieldwork conducted in May 2025. The unit of analysis was digitally supported social studies learning practice and the perceptions attached to that practice, rather than individual students' stable character development. MTs Almaarif 02 Singosari was selected purposively because it had implemented digital learning in social studies, possessed supporting digital facilities, and provided access to management, teacher, student, observation, and documentary evidence relevant to the research questions.

Research Setting and Informant Selection

The study involved seven informants: one madrasah principal, one vice principal for curriculum, one social studies teacher, and four Grade VIII students. Two student informants were from class VIII-A and two were from class VIII-B. The principal and vice principal provided information about policy, facilities, curriculum support, and institutional direction; the teacher described planning, classroom implementation, constraints, and assessment; and the students described their experiences with presentations, videos, online searches, quizzes, group work, and digital

assignments. Age range and gender composition were not reported as sampling characteristics in the source study. For reporting, the informants were coded P, VC, T, and S1-S4.

Informant Criteria, Data Sufficiency, and Ethics

Informants were selected purposively using three criteria: direct involvement in Grade VIII digital-based social studies learning, knowledge or experience relevant to the research focus, and willingness to provide information. Interviews were conducted individually using semi-structured guides. The source study contains written transcripts for seven interviews, but it does not report the exact duration of each interview or whether audio recording was used. Institutional research permission was obtained through an official university letter dated 12 May 2025. The source record does not document a separate written informed-consent form, so this limitation is reported transparently rather than reconstructed. Formal saturation was not claimed. Data were considered sufficient for the bounded case when all three research focuses—planning, implementation, and evaluation—were represented across management, teacher, student, observation, and document sources and could be compared through triangulation.

Data-Generation Instruments

The researcher served as the primary instrument, supported by semi-structured interview guides, a nonparticipant classroom-observation guide, and a document-review checklist. The interview guides covered planning decisions, reasons for selecting digital tools, classroom procedures, student responses, collaboration, constraints, assessment, and perceived indicators of creative and innovative action. Observation focused on teacher actions, student participation, peer support, tool-use patterns, technical constraints, and the production or presentation of digital work. Documents included the school profile; vision, mission, and objectives; teacher and staff data; Grade VIII student data; the social studies lesson plan; daily-assessment records; and photographic documentation of interviews and classroom digital-learning activities.

Procedures and Time Frame

The procedure consisted of pre-fieldwork, fieldwork, and analysis/reporting. During pre-fieldwork, the researcher obtained institutional permission, conducted initial field access, selected informants, and prepared interview, observation, and documentation guides. Fieldwork was conducted in May 2025. The source records document seven individual interviews: the social studies teacher on 16 May 2025, followed by the principal, vice principal for curriculum, and four students on 19 May 2025. One nonparticipant Grade VIII classroom observation lasted two lesson periods. The researcher also reviewed seven categories of institutional and learning documents. Observation results and interview responses were organized as written records and transcripts; exact interview durations and the recording method were not specified in the thesis. Analysis and reporting followed after source comparison and thematic organization.

Analysis Plan

Data analysis followed the interactive model of Miles, Huberman, and Saldaña (2014): data condensation, data display, and conclusion drawing/verification. Interview transcripts, the classroom-observation record, and documents were first organized by source and by the three research focuses of planning, implementation, and evaluation. Data condensation selected statements and events relevant to tool selection, classroom use, participation, support needs, assessment, and constraints. The condensed evidence was displayed in thematic narratives and compared across the principal, vice principal, teacher, students, observation, and documents. Conclusions were verified through source and technique triangulation. Creativity-related actions were interpreted through idea organization, variation or originality of presentation, and communicative design, whereas innovation-related actions were interpreted through experimentation with applications, adaptation, online information seeking, and problem solving. These were qualitative sensitizing indicators derived from the research instruments and field evidence, not standardized character measures.

Scope and Limitations

The study was limited to Grade VIII social studies learning in one madrasah and to the planning, implementation, and evaluation of digitally supported activities. It sought contextual understanding and analytical transferability rather than statistical generalization. It did not measure pre-post character change, compare alternative instructional conditions, or establish a causal effect of digital learning on innovation or creativity.

Table 1. Summary of Research Methods

No	Component	Explanation
1	Research design	Descriptive, bounded single-case study
2	Case boundaries	<i>One madrasah; Grade VIII social studies; fieldwork in May 2025</i>
3	Informants	<i>Seven informants: one principal, one vice principal for curriculum, one social studies teacher, and four students from VIII-A and VIII-B</i>
4	Selection	Purposive selection based on direct involvement, relevant knowledge, and willingness
5	Data generation	Seven individual semi-structured interviews, one nonparticipant observation (two lesson periods), and analysis of seven document categories
6	Credibility	Source and technique triangulation with comparison across management, teacher, student, observation, and document evidence
7	Analysis	Data condensation, coding, thematic display, cross-source verification, and cautious indicator interpretation
8	Unit of analysis	Digital-based social studies learning practices and participant perceptions

RESULTS AND DISCUSSION

Results

The findings are organized around planning, implementation, and evaluation. Across these themes, the analysis distinguishes between observable practices, participant perceptions, and claims about stable character. Digital products and reported behaviors are treated as contextual indicators of opportunities for creative and innovative action, not as proof that character formation occurred.

1. Digital-Based Learning Planning

Planning documents and teacher accounts indicated that digital tools were assigned different instructional functions rather than used as interchangeable media. Interactive presentations and videos were prepared to visualize social phenomena; Google Forms was planned for rapid individual responses; WhatsApp Groups supported communication and task distribution; and digital projects required students to reorganize social studies content into infographics, posters, presentations, or videos. This pattern suggests an accessibility-oriented design in which familiar tools were connected to specific learning purposes.

The planning pattern also showed an attempt to connect abstract or dynamic social studies topics with visual and contextual examples. At the same time, the design had to accommodate differences in device access and digital experience. Therefore, the analytical significance of planning lay not in the number of applications used, but in how teachers anticipated representation, communication, student production, and support needs.

The teacher described student readiness as the first planning criterion: *"The first step in planning digital learning is to look at the students' readiness, whether they have a mobile phone, can access the internet, and are familiar with applications such as Google Forms or WhatsApp before I prepare the lesson plan and assignments"* (T, individual interview, 16 May 2025). This account was corroborated by the lesson-plan and observation documents, which recorded the preparation of a lesson plan and digital teaching materials using PowerPoint, educational videos, Google Forms, WhatsApp Groups,

and digital project assignments. The vice principal for curriculum added that teachers were encouraged to use media familiar to students while remaining aligned with learning outcomes (VC, individual interview, 19 May 2025).

2. Implementation of Digital-Based Learning

Implementation followed several usage patterns. Presentations and videos were primarily teacher-guided and were used to introduce or contextualize material. Google Forms enabled short individual responses and immediate collection of answers. WhatsApp Groups extended communication beyond face-to-face lessons. Digital projects shifted activity toward information searching, selection, group negotiation, design, and presentation. Thus, the tools served different pedagogical roles rather than constituting a single undifferentiated form of digital learning.

Student responses were not uniform. The available account describes students who experimented with applications and presentation formats, but also students who required peer or teacher support because of limited familiarity, access, or time. These variations indicate that participation was mediated by digital literacy, task structure, and scaffolding. Any statement about increased activity or confidence therefore needs to be tied to a specific observed event or informant account rather than generalized to all students.

During the observed two-period lesson, the teacher first used PowerPoint and video to present the topic, then directed students to search for additional information, discuss in groups, and prepare digital work. The observation notes recorded active discussion and peer assistance, but also uneven facility access and differences in students' technical readiness. One student explained, *"It is easier to understand when there are videos or pictures. The assignments are also enjoyable, and group work makes me more enthusiastic"* (S3, VIII-B, individual interview, 19 May 2025). In contrast, the teacher stated that not all students were technically ready and that students were grouped so those already familiar with applications could assist those who were still struggling (T, individual interview, 16 May 2025). These sources show variation in participation rather than a uniform increase among all students.

3. Digital-Based Learning Evaluation

Evaluation combined formative and summative purposes. Digital quizzes, Google Forms, questions, and discussion were used to check understanding during learning, while presentations, infographics, posters, and short videos were used as project evidence. The study does not assume that producing a digital artifact is itself evidence of character. Instead, the analysis distinguishes the product from the observable processes and indicators attached to it.

For creativity, relevant indicators included originality of presentation, relevance and accuracy of content, elaboration, organization of ideas, and communicative design. For innovation, indicators included trying unfamiliar features, adapting a tool to the task, identifying and resolving technical or conceptual problems, and proposing alternative ways to present information. Participation and collaboration were considered separately. These indicators functioned as qualitative interpretive categories and should be aligned with the teacher's actual rubric; they were not standardized measures of student character.

The source study did not employ a separate numerical rubric for character assessment. Instead, the teacher interpreted project performance qualitatively through content understanding, information selection and organization, variation and originality of presentation, willingness to try digital applications, collaboration, and oral presentation. The observation guide also recorded active questioning and discussion, digital-product creation, experimentation with tools, and presentation of ideas. The teacher explained, *"I do not only give multiple-choice questions. I prefer assignments such as infographics or presentations. From these I can see who really understands the material and who can think more creatively"* (T, individual interview, 16 May 2025). A student similarly reported that presentation and image assignments were motivating because students could search for information online and create the work *"in our own way"* (S2, VIII-A, individual interview, 19 May 2025). These indicators were therefore treated as qualitative, event-specific evidence, not as standardized scores or proof of stable character.

Table 2. Summary of Research Findings

No	Research Focus	Main Findings
1	Digital learning planning	Teacher interview, lesson-plan documents, and observation records showed that tools were assigned distinct purposes for visualization, communication, rapid feedback, and student production.
2	Implementation patterns	The two-period observation and student interviews showed teacher-guided visual explanation, information searching, discussion, peer assistance, and digital production; participation varied with readiness and access.
3	Evaluation practices	Teacher and student interviews and assessment documents showed the use of online checks and project tasks; no separate numerical character rubric was used.
4	Innovation-related indicators	Trying Canva, PicsArt, or CapCut, adapting tools, searching additional sources, and solving technical difficulties were interpreted as contextual innovation-related actions.
5	Creativity-related indicators	Variation in designs, organization of information, visual communication, and presentation of ideas were interpreted as contextual creativity-related actions.
6	Constraints and variation	Teacher, student, and observation evidence identified unequal digital readiness, uneven projector and internet access, time limitations, and the need for peer or teacher assistance.

Discussion

The case suggests that the educational significance of digital learning depended less on the presence of technology than on the relationship among tool purpose, task structure, teacher guidance, and student access. This explains why the same set of tools could support visualization, communication, feedback, or production, but could also produce uneven participation when students had different levels of digital literacy.

The selection of relatively familiar tools such as WhatsApp and Google Forms can be interpreted as an accessibility-first strategy. Their value was practical: they reduced the learning cost of adopting unfamiliar platforms and enabled communication or feedback within the constraints of the setting. This interpretation is consistent with work emphasizing that digital-learning effectiveness depends on instructional strategy and user readiness rather than technological sophistication alone (Indah Khairany et al., 2024; Laily Yunita Susanti et al., 2025).

Planning mattered because it connected media to social studies content and anticipated what students were expected to do with information. Videos and visual presentations supported contextual representation, whereas projects required students to select, reorganize, and communicate information. The latter created opportunities for creative action, but those opportunities were contingent on explicit task criteria and scaffolding.

The variation in student response helps explain why digital learning should not be described as automatically student-centered. Some activities remained teacher-guided, while project work required more student initiative. Students who lacked confidence, access, or application experience required peer or teacher mediation. A sociocultural interpretation is therefore more directly connected to the data than a broad claim of role transformation: participation was enabled through interaction, modeling, assistance, and shared task completion (Wardani et al., 2023).

This finding aligns with studies reporting that digital media can make social studies content more contextual and visually accessible (Aisyah et al., 2024; Siregar & Sumantri, 2024; Zafira et al., 2024). The present case adds that contextual representation alone was insufficient; opportunities for interpretation and production emerged when students were required to transform information into a new communicative form.

The study nevertheless cannot conclude that students' character changed. Producing an infographic, trying an application, or participating in a presentation is an event-specific behavior that may indicate creativity- or innovation-related action. Stable character would require repeated

evidence across time and contexts, clearer indicators, and consideration of alternative influences such as prior ability, peer support, motivation, and teacher expectations.

For this reason, creativity was interpreted through the quality and organization of ideas and the communicative form of the product, while innovation was interpreted through experimentation, adaptation, and problem solving. These indicators explain how the study moved from digital activities to cautious analytical interpretation without equating technology use with character formation.

Evaluation design was central to that interpretation. A digital project can reveal more than recall when its rubric distinguishes content accuracy, originality, elaboration, design decisions, collaboration, and problem-solving processes. Without such criteria, assessment risks rewarding visual attractiveness or application proficiency rather than creativity or innovation.

The results are broadly consistent with Akhwani and Wulansari (2021) and Irwansyah Suwahyu et al. (2023), who describe digital learning as a possible context for character-oriented activity. However, the present study adopts a more limited claim: it identifies practices and perceptions that potentially support relevant behaviors, rather than confirming that digital learning formed character.

The madrasah context also adds a practical contribution. The case shows that widely available tools may be more sustainable than highly specialized platforms, but their pedagogical value depends on careful sequencing, accessible instructions, and support for students with lower digital readiness. This extends prior social studies media research by foregrounding implementation variation and constraints.

The reported barriers further explain the unevenness of the process. Limited time can compress project revision; unstable connectivity can shift attention from content to troubleshooting; and differences in device access can redistribute group responsibility. These conditions may influence whose ideas become visible in the final product and should therefore be considered when interpreting student work.

Teacher mediation remained important because the teacher linked tools to content, clarified criteria, organized collaboration, and provided technical or conceptual support. Technology did not replace instruction; it reconfigured when and how explanation, feedback, and production occurred.

Accordingly, the practical implication is to design a limited number of accessible tools around clear pedagogical functions, provide differentiated support, and use transparent rubrics that separate knowledge, product quality, collaboration, creativity-related indicators, and innovation-related indicators. This approach is more defensible than treating all digital participation as evidence of character.

Overall, the observed practices and participant accounts indicate contextual opportunities for students to search, reorganize, communicate, experiment, and solve problems through digital tasks. These opportunities were shaped by planning, teacher support, assessment design, digital literacy, access, and time. They should be interpreted as potential support for creative and innovative action, not as causal evidence of character formation.

Implications

The findings imply that digital-based social studies learning is most useful when each tool has a clear pedagogical function and when students receive sufficient technical and conceptual support. Teachers should provide multiple ways to participate, make assessment indicators explicit, and distinguish evidence of task performance from claims about stable character. Madrasahs should prioritize reliable access, teacher development, and support for students with lower digital readiness.

Research Contribution

This study contributes a contextual explanation of how digital tools were organized across planning, classroom use, and evaluation in a madrasah social studies case. Its analytical contribution is the distinction between digital activity, observable creativity- and innovation-related indicators, participant perceptions, and stronger claims of character development.

Limitations

This study was conducted in one madrasah and one subject area, so its findings are context-bound. The empirical base comprised seven individual interviews, one nonparticipant observation lasting two lesson periods, and a limited set of institutional and learning documents. The source study did not report exact interview durations, the interview-recording method, a separate written

consent form, or a formal saturation procedure. The small student informant group and single observation limited data depth, variation, and negative-case coverage. Interview responses may have been affected by social-desirability bias, particularly when participants discussed school practices or teacher performance. Researcher positionality and direct involvement in data generation may have influenced access, questioning, observation, and interpretation. The study did not collect longitudinal evidence, compare alternative instructional conditions, or use a standardized creativity or innovation scale. The qualitative indicators were task-specific and cannot establish stable character change.

Suggestions

Further research should use longitudinal and multi-site designs, more explicit creativity and innovation rubrics, repeated observation across tasks, and, where appropriate, mixed methods or comparison groups. For practice, teachers can continue using infographics, posters, presentations, videos, quizzes, and information searches, but should align each task with clear learning goals, provide differentiated support, and avoid treating digital product completion as sufficient evidence of creative or innovative character.

CONCLUSION

This single-case study found that digital-based social studies learning at MTs Almaarif 02 Singosari was organized through connected planning, implementation, and evaluation practices. Teachers used presentations, videos, Google Forms, WhatsApp Groups, online searches, quizzes, and digital projects for different purposes. Evidence from seven interviews, one two-period classroom observation, and institutional and learning documents showed that students had opportunities to search, reorganize, communicate, and present information, but their participation and support needs varied. These event-specific practices and perceptions indicate potential support for creative and innovative action; they do not confirm longitudinal character formation.

Digital project assessment can support more defensible interpretation when creativity- and innovation-related indicators are explicitly defined and separated from knowledge, participation, collaboration, and technical proficiency. Within the limitations of a single setting, incomplete longitudinal evidence, potential response bias, and uneven digital literacy and access, the findings suggest potential rather than causal support for creative and innovative action.

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AUTHOR CONTRIBUTION STATEMENT

FA contributed to the research design, data collection, data analysis, and writing the initial manuscript. AB contributed to research supervision, methodological review, and strengthening the discussion and contributed to the validation of the findings, manuscript revision, and refinement of the final article. All authors have read and approved the final version of this article.

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