Jurnal Review Pendidikan Dasar:
Jurnal Kajian Pendidikan dan Hasil Penelitian
Vol 12(3), Oktober 2026

e-ISSN: 2460-8475
http://journal.unesa.ac.id/index.php/PD
https://doi.org/10.26740/jrpd.v12n3.p306-329

Integrating Social Studies Learning Models, Media, and Methods to Support 6C Skills: A Systematic Literature Review of Trends, Patterns, and Underexplored Areas

Kitaman Hutapea ✉, Sebelas Maret University, Indonsia
Merliana Putri Manafe, Sebelas Maret University, Indonesia
Mintasih Indriayu, Sebelas Maret University, Indonesia

✉ *kitamanhtp@gmail.com*

Abstract: This study examines trends, integration patterns, and underexplored areas in using social studies learning models, media, and methods to support the six 21st-century skills (6Cs): critical thinking, creativity, collaboration, communication, character, and citizenship, in elementary education. A PRISMA 2020 systematic literature review searched Google Scholar, SINTA, Garuda, DOAJ, ERIC, Scopus, ScienceDirect, and conference proceedings (2016–2026). Fifty articles were analyzed thematically. Problem-Based Learning, Project-Based Learning, Collaborative Learning, Contextual Teaching and Learning, inquiry, discovery learning, and cooperative models were common. These were combined with interactive digital media, including Canva, Wordwall, augmented reality, PowerPoint, and Quizizz, and with methods such as group discussion, social projects, simulation, role-play, and educational games. Critical thinking and communication were most consistently emphasized, while creativity and collaboration were addressed through projects and group activities. Character and citizenship received less explicit and systematic attention. Gaps include simultaneous development of all six skills, long-term evaluation, authentic assessment, equitable access to digital infrastructure, and teachers' digital and TPACK competencies. In conclusion, the evidence supports aligning active learning models, suitable media, and collaborative-contextual methods with clearly defined skill targets.

Keywords: Social Studies Learning, 6C Skills, Learning Models, Media And Methods, Systematic Literature Review.

How to Cite: Hutapea, K., Manafe, M. P., & Indriayu, M. (2026). Integrating social studies learning models, media, and methods to support 6C skills: A systematic literature review of trends, patterns, and underexplored areas. Jur*nal Review Pendidikan Dasar: Jurnal Kajian Pendidikan dan Hasil Penelitian*, 12(3), 306-329. https://doi.org/10.26740/jrpd.v12n3.p306-329

© The Author(s) 2026

Article Info:
Received: 27 October 2026; Accepted: 28 October 2026; Published Online: 30 October 2026

Published by:
Pendidikan Dasar Universitas Negeri Surabaya

INTRODUCTION

Education systems have increasingly emphasized skills that extend beyond content mastery, and the 4C framework of creativity, critical thinking, communication, and collaboration has become a common reference point. In a recent discussion, Thornhill-Miller et al. (2023) described how these four skills can be assessed, certified, and promoted in education and in preparation for the future of work. The 6C framework adds character and citizenship to the 4C skills, which broadens attention from cognitive and interpersonal competence to the ethical and civic dimensions of learning. Research by Koçak et al. (2021) with 714 undergraduate students in Turkey found that critical thinking mediated the relationship between several 21st century skills and problem solving, and that communication skills predicted problem solving directly, which illustrates that these skills operate as an interconnected profile.

Social studies in elementary schools (*Ilmu Pengetahuan Sosial* in Indonesia) offers a curricular space where students analyze social phenomena, discuss community issues, and practice values that relate directly to all six C components. Research by Bauml (2023), which involved 14 elementary teachers in public schools, documents the peripheral status of social studies in early grades and examines how teachers understand content integration. These conditions make the choice of learning models, media, and methods consequential, because limited instructional time calls for activities that serve several learning goals at once. Understanding how these three instructional components are combined in elementary social studies is therefore relevant for both research and classroom practice.

Evidence on active learning models has accumulated in several subject areas and educational levels. Recent evidence indicates that project-based learning has been synthesized through meta-analysis in relation to student learning effects, with attention to 21st century skills and higher-order thinking (Zhang & Ma, 2023). A related meta-analysis by Zhang et al. (2024) examined project-based learning in relation to computational thinking across 31 experiments and quasi-experiments, which shows that the model has been tested for a wide range of outcomes. For inquiry-based learning, a systematic review and meta-analysis by Arifin et al. (2025) of 25 articles reported a mean effect size of 1.27 on critical thinking in science education, together with substantial heterogeneity ($I^2 = 92.0\%$) that pointed to contextual variation.

Cooperative structures have also received attention, and Cochon Drouet et al. (2023) conducted a systematic review and meta-analyses of the Jigsaw method in relation to student educational outcomes. Regarding media, a meta-analysis by Barz et al. (2024) in school contexts reported a medium overall effect of digital game-based learning ($g = .54$), a medium effect on cognitive outcomes ($g = .67$), and a small effect on affective-motivational outcomes ($g = .32$). Evidence on augmented reality is also available, since Chang et al. (2022) reviewed 134 experimental and quasi-experimental studies from 2012 to 2021 and reported benefits across response, knowledge and skill, and performance outcomes, with a larger mean effect on performance. These syntheses draw largely from

science education and general school contexts, and their transfer to elementary social studies and to the six C components remains to be examined.

Character and citizenship, the two components that distinguish 6C from 4C, have been examined through separate lines of research. According to Brown et al. (2023), a meta-analysis of 214 studies (N = 307,512) found a small but significant average positive effect of character education programs (g = 0.24), with larger effects for single-session interventions and mentoring programs. For citizenship, Tadlaoui-Brahmi et al. (2022) systematically reviewed how digital citizenship has been operationalized in teaching practices in primary education, and Richardson et al. (2021) reviewed 15 years of research on digital citizenship from 2004 to 2019. These reviews concentrate on character education programs and digital citizenship, and their connection with the models, media, and methods used in elementary social studies has received less systematic attention.

Implementation depends on teachers and on assessment practices that can capture student growth. Evidence from a systematic review of 88 articles by Fernández-Sánchez et al. (2022) identified teacher training as a determining factor in the integration of digital technologies, and primary education alone accounted for 5.7% of the reviewed publications. On assessment, Godaert et al. (2022) systematically reviewed how students' digital competences are assessed in primary school, which shows that the measurement of complex competences in elementary settings is an active line of inquiry. Assessment and teacher competence therefore form part of any realistic account of how integrated instruction supports 6C skills.

Existing studies have primarily focused on single instructional components, on selected skills within the 4C set, or on subject areas other than social studies, and the integration of all three components with the full 6C set remains underexplored in elementary social studies. The novelty of this study lies in its simultaneous attention to learning models, media, and methods in relation to all six C components within elementary social studies. This study extends previous research by synthesizing the integration patterns reported in 50 articles through a PRISMA-guided systematic literature review with thematic synthesis. Accordingly, this study aims to examine trends, patterns, and underexplored areas in the integration of social studies learning models, media, and methods that support 6C skills at the elementary school level.

To fulfill this aim, the review is guided by four research questions that structure the analysis reported in the Methods and Results sections. 1) Which learning models, learning media, and learning methods are most frequently reported in elementary social studies research that supports 6C skills? 2) How are these three components integrated to support each of the six C skills? 3) Which integration pattern is reported as most supportive of 6C skills? 4) Which aspects of 6C skills, evaluation, and teacher competence remain underexplored? Answering these questions is expected to provide an evidence-based map for researchers, teachers, and curriculum designers who work with elementary social studies.

METHODS

This research study used a *Systematic Literature Review (SLR)* to analyze the relationship of social studies learning models, media, and methods in supporting 6C skills (*critical thinking, creativity, collaboration, communication, character,* and *citizenship*). SLR is a method that is applied systematically and structured to study, evaluate, and synthesize relevant research so as to be able to identify trends, gaps, and directions in research development (Page et al., 2021; Safira & Veri, 2026). The research procedure refers to the PRISMA 2020 guidelines which include the identification, screening, feasibility assessment, and determination stages of the analyzed articles. Furthermore, the selected articles were analyzed applying thematic synthesis to analyze the patterns of integration of social studies learning models, media, and methods in supporting 6C skills in elementary school.

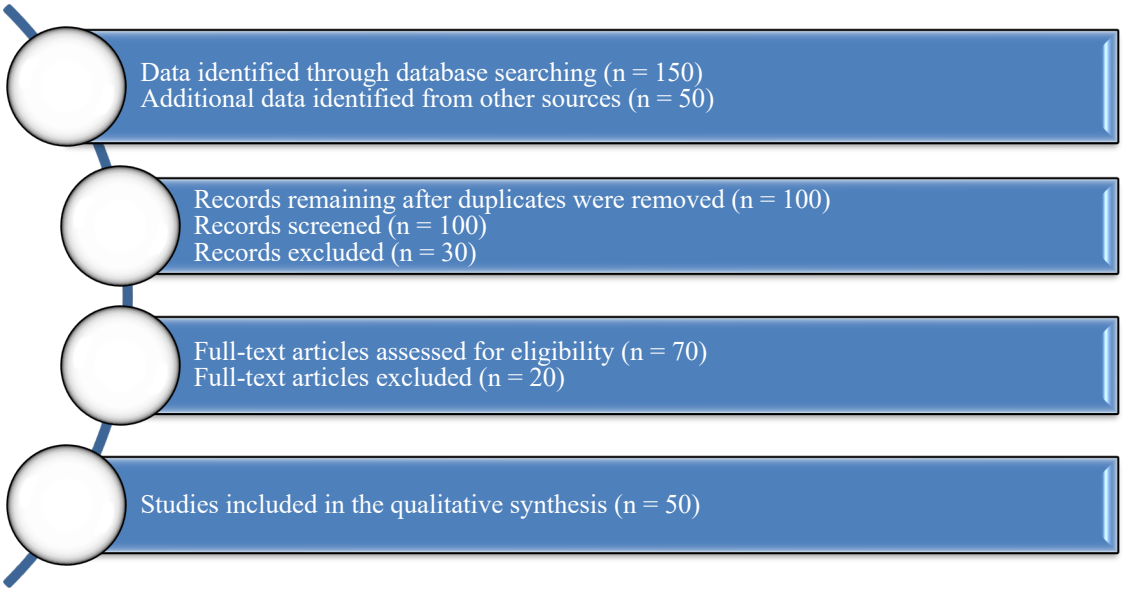


Figure 1. PRISMA Flowchart

Based on the PRISMA flowchart above, the identification stage produced 200 articles consisting of 150 articles from the database and 50 articles from other sources. After the removal of duplicate articles, 100 articles were obtained that entered the screening stage. In the screening stage, 30 articles were eliminated because they did not match the research criteria, so that 70 articles were continued to the feasibility assessment stage (*full-text assessment*). After a further evaluation process, 20 articles were excluded because they did not meet the inclusion criteria. Thus, as many as 50 articles were declared feasible and used in the qualitative synthesis of the research.

Research Data Sources

Research data was obtained from various national and international scientific articles, such as Google Scholar, SINTA, Prosiding, Scopus, Garuda, Doaj, ERIC, and ScienceDirect. The literature search stage was carried out by applying relevant keywords, such as "social studies learning", "learning model", "learning media", "learning

methods", and "21st century skills" or "6C". The article used was a publication in the 2016–2026 range that discussed the integration of social studies learning models, media, and methods in supporting 6C skills at the elementary school level. On the basis of the above foundation, a selection process was applied using the PRISMA 2020 guidelines, 50 articles were obtained that were classified as inclusion criteria and used as a source of research data.

Research Instruments

The research study instrument used is a data extraction sheet developed based on the research objectives. The sheet is used to identify and record important information from each article, including the identity of the article, year of publication, type of research, learning model, learning media, learning methods, aspects of the 6C skills developed, and the main findings of the research.

Data Collection Techniques

Data is collected by applying a documentation study to articles relevant to the research topic. The data collection process includes searching for articles based on predetermined keywords, selection of titles and abstracts according to inclusion and exclusion criteria, complete text review (*full-text review*), as well as data extraction from articles that meet the research criteria. The selected articles are then categorized based on learning models, learning media, learning methods, 6C skill aspects, and key research findings. Next, the data is analyzed with a *thematic analysis* to find research patterns, themes, trends, and gaps. The results of the analysis are presented in a qualitative descriptive manner, while the validity of the research is maintained through triangulation of sources and the application of strict article selection criteria.

Data Analysis Techniques

Data analysis by implementing the system *thematic analysis* to find patterns, themes, trends, and research gaps related to the integration of social studies models, media, and learning methods in supporting 6C skills. The analysis was carried out through the process of grouping data based on predetermined categories, identifying relationships between variables, and synthesizing findings from the analyzed articles. The findings were presented in a qualitative descriptive manner to find a comprehensive concept. The credibility of the research was maintained through triangulation of sources and the strict application of article selection criteria.

RESULTS

Based on results *Systematic Literature Review* of 50 studies on the integration of social studies learning models, media, and methods in elementary schools, it was found that social studies learning has undergone a transformation towards more interactive, contextual, collaborative, and technology-based learning. The integration of learning models, media, and methods has been proven to make a significant contribution to the development of 21st century skills or 6C skills (*Critical Thinking, Creativity, Collaboration, Communication, Character,* and *Citizenship*).

Table 1. Trends in the Integration of Models, Media and Learning Methods of Social Studies Elementary

Focus Analyst	Research Findings	Implications
Learning Model Trends	The most widely used models are *Problem Based Learning (PBL), Project Based Learning*, *Collaborative Learning*, *Contextual Teaching and Learning (CTL), Inquiry*, *Discovery Learning*, and cooperative models such as *Think Pair Share*, *Make a Match*, and *Quiz-Quiz Trade*.	Social studies learning tends to shift to *student-centered learning* that emphasizes students' active involvement in solving social problems and working together.
Learning Media Trends	The dominant media used include interactive digital media such as Canva, Wordwall, AR, interactive multimedia, Google Slides, PowerPoint, Quizizz, Android applications, as well as educational game media such as monopoly, puzzles, educational cards, and board games.	Interactive and digital media are able to increase motivation, engagement, and create social studies learning that is more interesting, contextual, and fun.
Learning Method Trends	The methods that are often used are group discussions, social projects, simulations, role plays, presentations, observations, experiments, educational games, and group work.	Social studies learning becomes more active, collaborative, and provides a hands-on learning experience to students.

Trends in the Integration of Social Studies Learning Models, Media, and Methods

The results of the analysis show that the social studies learning trend is dominated by the application of a learning model centered on learning activities carried out by students (*student-centered learning*) to encourage active engagement and development of 21st century skills such as *Problem Based Learning* (PBL), *Project Based Learning*, *Collaborative Learning*, *Contextual Teaching and Learning* (CTL), *Discovery Learning*, *Inquiry*, and various cooperative models such as *Think Pair Share*, *Make a Match*, and *Quiz-Quiz Trade* (Ngatari & Novianti, 2021; Wulandari et al., 2025; Amalia & Rafianti, 2024; Utama et al., 2023). These models tend to place students as subjects who participate in the learning process through discussion activities, problem-solving, and the implementation of social projects, simulations, and group work.

In the media aspect, the research shows the dominance of the use of digital and interactive media such as Canva, Wordwall, interactive PowerPoint, Google Slides, Android applications, interactive multimedia, Macromedia Flash, Quizizz, and *Augmented Reality* (AR) (Lahamado et al., 2025; Nafian et al., 2024; Chumairah & Nurmairina, 2024; Marifah & Amaliyah, 2022; Suryani et al., 2024; Candra et al., 2025). In addition to digital media, conventional game-based media such as monopoly, puzzles, educational cards, and board games are also still widely used because they include the characteristics of elementary school students who enjoy learning through play activities (Kurniawati et al., 2021; Setiawati et al., 2019; Sundari et al., 2023; Baihaqi et al., 2018). Meanwhile, the most dominant learning methods used are group discussions, social

projects, simulations, presentations, observations, experiments, educational games, and real-experience contextual learning (Wati, 2025; Zahro, 2022; Wulandari et al., 2025; Ani et al., 2024). This indicates that social studies learning is beginning to shift from lecture methods to active learning that involves students' hands-on experience.

Table 2. Skill Aspects 6C

Skill Aspects 6C	Findings	Implications
Critical Thinking	The most dominant aspects of critical thinking are found through the PBL, Inquiry, CTL, Discovery Learning, and Project Based Learning models. Students are trained to analyze social problems, solve problems, and evaluate information.	Social studies learning is able to improve analytical skills and real problem-solving in elementary school students.
Creativity	Creativity develops through the use of digital media, social projects, educational games, Canva, AR, puzzles, monopoly, and interactive multimedia.	Students are more free to explore ideas, produce works, and learn creatively through social studies learning.
Collaboration	Collaboration develops through group discussions, project work, cooperative learning, role play, pair check, and think pair share.	Social studies learning supports students' ability to work together, group responsibility, and social interaction.
Communication	Almost all studies show improved communication skills through discussions, presentations, social simulations, questions and answers, and interactive media.	Students become more active in conveying ideas, discussing, and expressing opinions in social studies learning.
Character	Character develops through contextual learning, educational play, value-based learning, and social projects. Developed values include discipline, responsibility, empathy, cooperation, and honesty.	Social studies plays a role in the formation of students' social character through meaningful learning experiences.
Citizenship	The citizenship aspect emerges through cultural learning, diversity, social projects, and media such as the Nusantara Card, SUPERINDO, and MAPENA.	Social studies learning helps instill the values of nationalism, tolerance, and social awareness as citizens.

6C Skill Development Pattern

Critical Thinking

Critical thinking skills were the most dominant aspect found in the research. Model *PBL*, *Inquiry, CTL, Discovery Learning, Deep Learning,* and *Project Based Learning* proven to be effective in improving students' ability to analyze problems, solve social problems, evaluate information, and make decisions (Ngatari & Novianti, 2021; Royani et al., 2024; Wulandari et al., 2025; Ani et al., 2024). Interactive digital media such as Canva, Wordwall, interactive multimedia, AR, and Google Slides also support students in

understanding social studies concepts in a more in-depth manner and in accordance with real-life contexts (Lahamado et al., 2025; Nafian et al., 2024; Prayitno et al., 2023; Candra et al., 2025; Marifah & Amaliyah, 2022).

Critical thinking is a rational and deep thinking process that aims to achieve certain goals through analysis, problem-solving, conclusion-making, and evaluation activities that are carried out systematically (Anggriani et al., 2024) which have an important role in forming a comprehensive understanding to face various complex challenges, as well as helping in decision-making even though the available information is still limited or not fully accurate (Nasution & Sitepu, 2025) and can direct students to think and act appropriately and help understand the relationship between various things (Sahrina & El-Yunusi, 2024). This is in line with social studies learning which is designed to enrich knowledge, deepen understanding, and hone analytical skills on the social dynamics of society in response to changes in social life that occur (Wijaya et al., 2024). This pattern shows that modern social studies learning tends to be directed at strengthening analytical skills and solving real social problems.

Creativity

The creative aspect develops through the use of digital media, educational games, social projects, and visual-interactive media. The use of Canva, interactive PowerPoint, puzzle media, monopoly, and AR provide space for students to explore ideas, create solutions, and express their understanding creatively (Lahamado et al., 2025; Nurfadhillah et al., 2021; Sundari et al., 2023; Kurniawati et al., 2021; Candra et al., 2025). Project learning also encourages students to produce learning works and products that are relevant to real-life contexts (Wati, 2025; Wulandari et al., 2025). This shows that creativity develops optimally when learning provides freedom of exploration and a fun learning experience.

Creative thinking is the process of generating new ideas through the incorporation of various ideas that have not been previously combined (Wattimena et al., 2014). This aims to identify new relationships between various elements, produce innovative solutions to problems, find new methods or approaches, and create original artistic forms. With the ability to think creatively, one can find new ways to solve a problem (Wahida et al., 2015). So, it can be concluded that creativity develops optimally when learning provides space for exploration, an interesting and fun learning experience, and provides opportunities for students to create new ideas, solutions, and works through interactive and contextual learning media and activities.

Collaboration

Collaboration skills develop by applying cooperative models, project-based learning, group discussions, *role play*, and educational games. Research shows that group activities are able to increase social interaction, cooperation, mutual help, and students' sense of responsibility in completing tasks together (Nurdiansyah et al., 2024; Utami & Giyartini, 2021; Amalia & Rafianti, 2024). Models such as *Collaborative Learning*, *Think Pair Share*, *Pair Check*, *Small Group Work*, and *Quiz-Quiz Trade* become the dominant pattern in building students' cooperation skills (Ngatari & Novianti, 2021; Utama et al.,

2023). This activity can be seen in collaborative activities between group members in dividing tasks, working together and helping each other complete projects, and building cohesiveness during the project creation process (Wahyuningtyas et al., 2025). So it can be concluded that collaboration skills develop through the application of cooperative, project-based learning models, group discussions, role plays, and educational games that encourage social interaction, cooperation, responsibility, and cohesiveness of students in completing tasks together.

Communication

Communication skills were the most consistent aspect that emerged almost throughout the study. The use of discussions, presentations, social simulations, *role playing*, questions and answers, and interactive media help students more actively convey ideas, discuss, and express opinions (Khatimah et al., 2025; Salsabila et al., 2024; Ani et al., 2024; Chumairah & Nurmairina, 2024). Digital media and educational games also create more active two-way interactions between teachers and students as well as between students (Choirunnisa & Arini, 2023; Baihaqi et al., 2018; Utama et al., 2023). The indicator of the achievement of these communication skills in social studies learning is of course the skills in presenting ideas effectively, actively listening, conveying information clearly, and using appropriate and effective language (Pratiwi et al., 2022) and openness in information transfer, showing empathy, providing support, and fostering a positive attitude (Rayhana, 2024). According to Wahyuningtyas et al. (2025) stated that this activity was formed through activities when students discussed to determine tools, materials, and assignments in completing projects, presentation of project work and discussions in providing comments and suggestions. Communication skills are the most consistent aspect that appears in various studies through discussions, presentations, social simulations, role playing, questions and answers, as well as the use of interactive media and educational games. These activities are able to encourage students to be more active in conveying ideas, listening, discussing, giving opinions, and building effective, empathetic, and open communication in social studies learning.

Character

Character aspects develop through contextual learning, educational play, value-based learning, and collaborative activities. Values such as responsibility, discipline, empathy, cooperation, honesty, and independence appear consistently in research (Ngatari & Novianti, 2021; Wati, 2025; Royani et al., 2024). Models such as *Value Clarification Technique*, CTL, *role play*, and project-based learning has been proven effective in shaping students' social character (Ngatari & Novianti, 2021; Amalia & Rafianti, 2024; Wulandari et al., 2025). This aims to guide and develop students' potential so that they form strong character and become individuals who are beneficial to themselves and their environment (Muhammad et al., 2023) which requires the character of responsibility, independence and empathy/social concern to also be realized in learning (Wahyuningtyas et al., 2025). So, it can be concluded that this aspect of character can develop through contextual learning, educational games, value-based learning, and collaborative activities

that instill the values of responsibility, discipline, empathy, cooperation, honesty, and independence. Models such as *Value Clarification Technique* (VCT), CTL, role play, and project-based learning have proven to be effective in shaping students' social character and developing concern for themselves and the environment.

Citizenship

Citizenship skills emerge through social studies learning that raises social, cultural, diversity, and community issues. Media such as Kartu Nusantara, SUPERINDO, MAPENA, and social projects help students understand cultural identity, tolerance, nationalism, and social awareness as citizens (Baihaqi et al., 2018; Sundari et al., 2023; Qurrotaini & Putri, 2024; Wati, 2025). However, compared to other aspects, *citizenship* is still relatively less explicitly developed in research. This indicates that civic skills are abilities that are integrated with civic knowledge that form meaningful understanding in dealing with various problems in the life of the nation and state (Nduru et al., 2022).

According to Wahyuningtyas et al. (2025) stated that learning is formed by developing civic awareness and awareness of social issues to students which is reflected in the attitude of mutual cooperation as the cultural heritage of the Indonesian nation and the practice of the third precept of Pancasila. So, it can be concluded that it develops through social studies learning that raises social, cultural, diversity, and community life issues. The use of media and social projects helps students understand cultural identity, tolerance, nationalism, and social awareness as citizens. However, compared to other 6C aspects, citizenship skills are still relatively rarely developed explicitly in research, although it is important to form social awareness and attitudes of cooperation and help in the life of society, nation, and state.

The Most Effective Integration Pattern

The results of the synthesis show that the most effective integration in supporting 6C skills is a combination of active learning models such as PBL, *Project Based Learning*, *Collaborative Learning*, and CTL; interactive digital media such as Canva, AR, interactive multimedia, Wordwall, and PowerPoint; as well as collaborative and contextual methods such as group discussions, social projects, simulations, and educational games (Wulandari et al., 2025; Lahamado et al., 2025; Nafian et al., 2024; Nawir et al., 2026). These combinations are able to create more meaningful, fun social studies learning (*joyful learning*), contextual with students' lives, increasing motivation and learning engagement, while developing 6C skills in an integrated manner (Setiawati et al., 2019; Kurniawati et al., 2021; Nawir et al., 2026). In addition, the integration of conventional and digital media has also proven to be effective in accommodating a variety of learners' learning styles, such as visual, auditory, and kinesthetic (Nawir et al., 2026). Overall, the integration of active learning models, interactive digital media, and collaborative-contextual methods has proven to be the most effective pattern in developing 6C skills holistically and creating more meaningful and student-centered social studies learning.

Underexplored Aspects Identified in the Reviewed Studies

Although most studies report positive results, several aspects remain underexplored.

Dominance of Critical Thinking and Communication Aspects

Most of the research focuses more on the development of critical thinking and communication, while citizenship and character have not been developed in depth and measurably. Although research by Arianda et al. (2024) reveals that the PjBL model can be applied in developing 21st century skills, both academic and non-academic skills, there are a number of challenges in its implementation that still focus on increasing motivation, student involvement, and character development, making it a relevant choice to be widely applied at various levels of education. Research related to 21st century skills tends to emphasize critical thinking and communication, while the development of character and citizenship is still relatively limited and requires more in-depth study (Astuti, 2024). Astuti (2024) emphasized that 21st century learning is carried out by integrating technology, problem-based learning, project-based learning, character education, and civic education. Through the application of these various methods and approaches, 6C skills play a role in preparing elementary school students to face various demands and problems in the 21st century, as well as creating a more dynamic, creative, and interactive learning atmosphere.

Limited Research Integrating the 6Cs Completely

Most studies have only developed 2-4 aspects of the overall 6C skills, while studies that integrate all aspects of the 6C simultaneously are still limited (Nawir et al., 2026). Therefore, 6C skills development requires support for integrated planning, implementation, evaluation, and learning strategies (Bulkis et al., 2025). Based on research findings from Hutapea et al. (2026) regarding the application of the social studies learning model, the evidence is still limited to PBL, PjBL, and cooperative learning that focus on improving critical thinking, creativity, communication, and collaboration skills, while the aspects of character and citizenship are not widely developed. Thus, the integration of all aspects of the 6Cs is still not optimal because most of the research focuses only on critical thinking, creativity, communication, and collaboration, while character and citizenship are still underdeveloped.

Reliance on Digital Media

Many digital learning media require an internet connection and adequate technology facilities, so their implementation is still constrained in schools with limited facilities (Nafian et al., 2024; Rosalinda & Kurnia, 2024). The obstacles and challenges faced by teachers are the limitations of school infrastructure, uneven access to technology, and low teacher competence in designing effective digital learning designs that have the potential to cause cognitive burdens for students (Azizah et al., 2026). In addition, teacher factors that include low understanding of technology, lack of training, and limited time are the main factors that hinder the implementation of technology-based learning media (Barokah et al., 2025). The functions and benefits of digital learning media nevertheless

have an important role in the foundation of learning design to support the effectiveness of teaching and learning activities. According to Fitri and Hadi (2024), the use of digital learning media aims to reduce boredom during the learning process, increase the effectiveness of teaching and learning activities, and make learning time more optimal. It is hoped that the use of learning facilities and resources will have a great influence on the learning process in schools and support learning activities, because it can make learning more active and enjoyable (Narmi et al., 2021). Therefore, further research and innovation are needed related to the development of digital learning media that are effective, easily accessible, and in accordance with the conditions of schools that have limited technological facilities so that they can support social studies learning in a more inclusive and sustainable manner and support the 6C competencies for elementary school students.

Limited Long-Term Evaluation

Most studies only measure increased motivation and learning outcomes in the short term. Research related to the long-term impact on students' 6C skills development is still minimal. Social studies learning evaluation in measuring 6C skills still faces various obstacles, especially because the assessment instruments used tend to focus on cognitive aspects and 4C skills (critical thinking, creativity, communication, collaboration) (Setiawan et al., 2026). The same is true for research by Setiawan et al. (2025) that still measures 21st-century skills assessment (4C) instruments for IPAS-based Problem Based Learning, namely Critical Thinking, Creativity, Communication, and Collaboration. Meanwhile, the aspects of character and citizenship are still relatively difficult to measure comprehensively, so it is necessary to develop evaluation instruments that are more authentic, holistic, and in accordance with the characteristics of the 6C skills. To optimize the implementation, teachers develop various innovative strategies such as task differentiation, collaborative learning, Problem-Based Learning (PBL), Inquiry-Based Learning (IBL), and role play. In addition, teachers relate learning materials to the context of students' real lives so that learning becomes more meaningful, relevant, and able to overcome various challenges that arise in the classroom (Bulkis et al., 2025). According to Hidayat and Aulia (2024), comprehensive assessment instruments allow for the measurement of students' abilities across the board and support appropriate learning decision-making to improve learners' competencies. Thus, evaluation of 6C skills remains underexplored, as most of the research focuses on 4C measurement and short-term learning outcomes.

Teacher Competence in Technology Integration

Several studies show that the successful implementation of learning models and media is influenced by teachers' ability to design, manage, and integrate learning technology effectively (Sudiarti et al., 2025; Nawir et al., 2026). According to Yanti et al. (2024), the successful implementation of technology-based learning models and media is greatly influenced by teacher competence, especially the ability of Technological Pedagogical Content Knowledge (TPACK) in integrating technology, pedagogy, and learning materials effectively. Therefore, the integration of technology in learning is highly

dependent on the ability of teachers to combine technology, pedagogy, and teaching materials, so training is needed to increase teachers' competence and confidence in applying technology effectively (Li et al., 2022). Continuous improvement of competencies and technology training is needed so that teachers are able to design and manage digital learning effectively in supporting the development of 21st century skills.

DISCUSSION

Student-Centered Integration of Learning Models, Media, and Methods

The synthesis shows that elementary social studies in the reviewed articles is organized mainly around active models such as Problem Based Learning, Project Based Learning, Collaborative Learning, Contextual Teaching and Learning, Inquiry, and Discovery Learning. A plausible explanation for this pattern is that social studies content, which consists of community issues, cultural diversity, and civic life, lends itself to tasks in which students analyze a problem, collaborate, and present a solution. Previous research on project-based learning provides a point of comparison, since Zhang and Ma (2023) synthesized its effects on student learning in relation to 21st century skills and higher-order thinking through meta-analysis. A separate meta-analysis by Zhang et al. (2024) addressed computational thinking, which shows that the model has been tested for a wide range of outcomes, and the transfer of those results to elementary social studies requires empirical confirmation.

Evidence on inquiry-based learning illustrates why the dominance of a model should be interpreted with care. In the meta-analysis by Arifin et al. (2025), a mean effect size of 1.27 on critical thinking was accompanied by substantial heterogeneity (I^2 = 92.0%), and the authors examined educational level, teaching strategy, use of information and communications technology, duration, and evaluation as sources of variation. Related work on inquiry by Antonio and Prudente (2023) in science and on active learning among Asian students in STEM subjects by Ting et al. (2023) shows that comparable questions are being examined in neighboring fields, and these studies can inform the design of future social studies research. The frequent use of these models in the reviewed articles can therefore be read as alignment between social studies tasks and active learning structures, and the practical implication is that teachers should select a model according to the learning target and report the implementation conditions so that effects can be interpreted in context.

Interactive Digital and Game-Based Media in Elementary Social Studies

The reviewed articles report a wide use of interactive digital media such as Canva, Wordwall, Augmented Reality, Quizizz, and interactive multimedia, together with game-based media such as monopoly, puzzles, and educational cards. This pattern is understandable in elementary classrooms because interactive and game-based formats offer visual input, immediate feedback, and play, which are features that may sustain young learners' engagement. Research by Barz et al. (2024) offers a useful comparison, as their meta-analysis of digital game-based learning in schools reported a medium

overall effect (g = .54), a medium effect on cognitive outcomes (g = .67), a small effect on affective-motivational outcomes (g = .32), and no significant effect on metacognitive outcomes. This profile suggests that the motivation and engagement frequently reported in the reviewed social studies articles are plausible outcomes of such media, while claims about higher-order or reflective outcomes need design features that target those outcomes directly.

Immersive media provide additional points of comparison, including the meta-analysis of virtual reality in STEM learning by Cromley et al. (2023), which extends the discussion of media effects to virtual environments. Recent evidence indicates that augmented reality was beneficial across response, knowledge and skill, and performance outcomes in the 134 studies reviewed by Chang et al. (2022), with a larger mean effect on performance outcomes. The study by Wen et al. (2023) combined augmented reality with an inquiry-based approach in primary science classrooms, and the review by Yun and Crippen (2024) examined educational technology within inquiry-based elementary science education, so both works pair media with a pedagogical approach. Taken together, these findings suggest that the contribution of media to 6C skills depends on how media are embedded in a model and a method, so teachers can pair a tool such as Canva or Wordwall with a collaborative task and a clear reflection activity to link the medium with the targeted skill.

Cognitive and Interpersonal Skills within the 6C Profile

Critical thinking and communication appeared most consistently in the reviewed articles, and creativity and collaboration were also reported through projects, digital media, and cooperative activities. One explanation is that discussions, presentations, simulations, and problem-solving tasks provide frequent opportunities to practice and to observe these skills, which makes them easier to report in research. Research by Koçak et al. (2021) with undergraduate students found that critical thinking mediated the relationship between cooperativity, creativity, digital literacy, algorithmic thinking, and problem solving, and that communication skills predicted problem solving directly. Because that sample differs from elementary students, the findings should be interpreted as a conceptual indication that the skills are interrelated, and the implication for elementary social studies is that lessons can be planned so that one activity develops several skills at the same time.

The connection with cooperative structures is supported by related syntheses. According to Cochon Drouet et al. (2023), the Jigsaw method has been examined in a systematic review and meta-analyses of student educational outcomes, which provides a reference for the cooperative models reported in the present review. A meta-analysis by Barta et al. (2022) examined concept mapping and the development of critical thinking abilities and dispositions, which offers a comparison for the tools that support the analysis of social phenomena. Because Thornhill-Miller et al. (2023) discuss the 4Cs within a common framework of assessment and promotion, it is reasonable to plan and evaluate cognitive and interpersonal skills in social studies as a profile.

Character and Citizenship in Social Studies Learning

Character and citizenship developed through contextual learning, value-based learning, role play, social projects, and media such as *Kartu Nusantara*, *SUPERINDO*, and *MAPENA*, although the reviewed articles describe these outcomes less explicitly than the 4C skills. A possible explanation is that values such as responsibility, empathy, tolerance, and cooperation are often embedded in activities and discussed in narrative form, which makes them less visible in outcome measures. Research by Brown et al. (2023) provides a relevant comparison, since their meta-analysis of 214 studies found a small but significant average effect of character education programs ($g = 0.24$) and larger effects for single-session interventions and mentoring programs. The small average effect and the variation across program types indicate that expectations about character outcomes in elementary social studies should remain moderate, and teachers may consider adding relationship-based or mentoring elements to value-oriented projects.

Citizenship appears in the reviewed articles through cultural diversity, nationalism, tolerance, and social awareness, and digital citizenship offers an additional lens for interpreting this component. In a systematic review of primary education, Tadlaoui-Brahmi et al. (2022) examined how digital citizenship has been operationalized in teaching practices, and Richardson et al. (2021) reviewed research on digital citizenship from 2004 to 2019. The study by Vajen et al. (2023) examined teachers' perspectives and practices in digital citizenship education in Germany and Hong Kong, which indicates that teachers' perspectives are an established focus of research on this topic. These comparisons suggest that citizenship in elementary social studies can be strengthened by stating explicit civic indicators, combining local cultural content with digital literacy activities, and assessing participation in classroom and community projects.

Teacher Competence, Infrastructure, and Technology Integration

The reviewed articles indicate that the success of technology-based models and media depends on teachers' TPACK and on school infrastructure. A systematic review of 88 articles by Fernández-Sánchez et al. (2022) reported teacher training as a determining factor in the integration of digital technologies and found that primary education was the exclusive focus of only 5.7% of the reviewed publications. Research by Lee et al. (2022) reviewed primary school teachers' experiences with digital technologies curricula, and Li et al. (2022) analyzed differences in teachers' TPACK abilities according to teaching stages and educational levels. These studies support the interpretation that primary teachers constitute a distinct group for professional development, and the implication is that training for social studies teachers should address subject-specific uses of technology.

Teacher decisions about technology are shaped by perceived utility and motivation. Research by Backfisch et al. (2021) investigated variability in teachers' technology integration in the classroom with utility as a central concept, and Fütterer et al. (2023) examined will, skills, and conscientiousness as predictors of teachers' intentions to join technology-related professional development. For professional

development design, Jiménez Sierra et al. (2023) reviewed 16 studies on TPACK development through Lesson Study, and Mohebi (2021) reviewed theoretical models for integrating interactive learning technologies into teaching. Taken together, these studies suggest that social studies teachers may benefit from collaborative professional development that links technological, pedagogical, and content knowledge in lesson design, and from school support that makes the perceived utility of media visible in everyday practice.

Assessment of 6C Skills and Long-Term Evaluation

The reviewed articles measure mostly short-term outcomes such as motivation and learning results, and the instruments reported are concentrated on cognitive aspects and 4C skills. This pattern may reflect the availability of established instruments for cognitive outcomes and the difficulty of observing character and citizenship over time. In a review of critical thinking assessments, Butler (2024) examined instruments that aim to predict everyday critical thinking, and Godaert et al. (2022) reviewed the assessment of students' digital competences in primary school. These reviews show that the assessment of complex competences has a developing methodological base, and the implication is that social studies researchers can adapt validated approaches while adding indicators for character and citizenship.

Theoretical clarity also affects how skills are measured. An analysis by Kaczkó and Ostendorf (2023) of the theoretical model and cognitive presence coding schemes used to study critical thinking in the community of inquiry framework shows that the operationalization of critical thinking continues to receive conceptual attention. A comparable need applies to the 6C profile, because the meta-analysis by Arifin et al. (2025) included evaluation among the factors examined in its subgroup analysis of inquiry effects. Long-term and authentic assessment, such as rubric-based observation of group projects, portfolios, and follow-up measurement after a unit ends, would allow future studies to examine whether the gains reported in short interventions persist.

Implications for Elementary Social Studies Practice

The findings suggest that elementary social studies can be designed as a combination of an active model, an interactive medium, and a collaborative or contextual method that is matched with a target skill. Because Bauml (2023) documented the peripheral status of social studies in early grades, such integration may also help teachers to use limited instructional time for several learning goals at once. For teachers, a practical sequence is to select the skill target, choose a model that structures the task, add a medium that supports interaction, and plan an assessment that observes the targeted skill. For schools and policy makers, the provision of infrastructure and continuous professional development are conditions that influence whether such designs can be implemented in different school contexts.

Limitations

This review has several limitations that should be considered when interpreting the findings. A formal quality appraisal of the 50 included articles is not reported in this

review, so the strength of evidence behind each reported effect could not be graded. The corpus combines national and international sources, and many included articles are media development studies, which limits the comparability of effect statements across studies. Thematic synthesis also involves researcher interpretation, and Braun and Clarke (2021) describe the researcher's subjectivity and reflexive engagement as part of qualitative analysis, so readers should consider that other coding decisions could produce different thematic structures.

The 2016 to 2026 window and the focus on elementary school social studies restrict generalization to other levels and subjects. Future studies can examine all six C components within the same design, using experimental or longitudinal approaches that follow students across semesters. Researchers can also develop and validate instruments that capture character and citizenship in addition to the 4C skills, and they can test how teacher TPACK mediates the effect of integrated designs. Comparative studies across schools with different technological facilities would clarify how infrastructure conditions the effectiveness of digital media and would extend the evidence beyond the contexts represented in the present corpus.

CONCLUSION

This systematic literature review synthesized 50 studies on the integration of social studies learning models, media, and methods in elementary education. The reviewed literature commonly reported student-centred models, including Problem-Based Learning, Project-Based Learning, Collaborative Learning, Contextual Teaching and Learning, inquiry, discovery learning, and cooperative learning. These models were used alongside interactive digital media and conventional educational games, supported by discussion, social projects, simulation, role-play, presentation, observation, and group work. Across the reviewed studies, critical thinking and communication were the most consistently emphasized 6C skills; creativity and collaboration were also supported through project-based and cooperative activities. Character and citizenship appeared in value-based, contextual, and socially oriented learning activities, but were less often operationalized and evaluated explicitly. The synthesis points to a potentially useful instructional configuration that aligns an active learning model, an appropriate interactive or conventional medium, and collaborative or contextual methods with specific learning objectives. Because the included studies varied in design and outcome measures and this review did not report a formal quality appraisal, this pattern should be interpreted as a recurring synthesis finding rather than definitive proof that one combination is universally the most effective.

Several gaps remain, including limited studies that address all six skills simultaneously, insufficient long-term evaluation, a lack of authentic and comparable measures—particularly for character and citizenship—and unequal access to digital infrastructure. Teacher competence in digital literacy and Technological Pedagogical Content Knowledge (TPACK) is also an important implementation consideration. Future research should develop and validate assessment tools for the full 6C profile, use

longitudinal or comparative designs to examine whether learning outcomes persist, and report implementation conditions transparently. Teachers can use the findings to align learning objectives, models, media, methods, and assessment rather than selecting technology for its own sake. Schools and policymakers can support implementation through equitable access to learning resources and sustained professional development. In conclusion, strengthening 6C skills in elementary social studies requires coherent instructional design and more robust evidence about how the six skills develop over time and across different classroom contexts.

AI Use Statement

The authors used AI tools, if applicable, solely for language editing and proofreading. All authors take full responsibility for the content of this manuscript.

Author Contributions

KH: contributed to conceptualization, methodology, data collection, data analysis, and manuscript drafting. MPM: contributed to literature screening, data analysis, and manuscript review. MI: contributed to supervision, interpretation of findings, and manuscript revision. All authors reviewed and approved the final manuscript.

Funding Statement

This research received no external funding.

Conflict of Interest

The authors declare no conflict of interest.

REFERENCES

Amalia, Z., & Rafianti, W. R. (2024). *Penerapan model pembelajaran PBL, role playing, dan small group work untuk meningkatkan aktivitas dan hasil belajar dalam pembelajaran IPS. Jurnal Teknologi Pendidikan dan Pembelajaran (JTPP), 01*(04), 724-728. https://jurnal.kopusindo.com/index.php/jtpp/article/view/174/165

Anggriani, R., Hakim, A. R., & Hairunisa. (2024). *Pengembangan LKPD berbasis literasi numerasi menggunakan model PjBL dalam meningkatkan kemampuan berpikir kritis siswa kelas V SDN Inpres Muku. Jurnal Pendidikan dan Pembelajaran Indonesia (JPPI), 4*(1), 101-110. https://doi.org/10.53299/jppi.v4i1.438

Ani, N., Asyahidah, N. L., & Rustini, T. (2024). *Analisis pembelajaran IPS di kelas tinggi menggunakan model problem based learning pada materi keberagaman di Indonesia. Jurnal Bintang Pendidikan Indonesia (JUBPI), 2*(1), 98-103. https://doi.org/10.55606/jubpi.v2i1.2466

Antonio, R. P., & Prudente, M. S. (2023). Effects of inquiry-based approaches on students' higher-order thinking skills in science: A meta-analysis. *International Journal of Education in Mathematics, Science and Technology, 12*(1), 251-281. https://doi.org/10.46328/ijemst.3216

Arianda, Y. D., Kamal, I., Supriadi, W., Mahdiyah, M., & Sarifah, I. (2024). Trends in project based learning models in increase 6C skills (character, citizenship, critical thinking, creative, collaborative, and communication). *Jurnal Penelitian Pendidikan, 41*(2), 143-152. https://doi.org/10.15294/jpp.v41i2.18711

Arifin, Z., Sukarmin, Saputro, S., & Kamari, A. (2025). The effect of inquiry-based learning on

students' critical thinking skills in science education: A systematic review and meta-analysis. *Eurasia Journal of Mathematics, Science and Technology Education, 21*(3), Article em2592. https://doi.org/10.29333/ejmste/15988

Astuti, M. L. (2024). The role of 6C skills in 21st century learning of elementary school students. *DIDAKTIKA: Jurnal Pendidikan Sekolah Dasar, 7*(2), 154-161. https://doi.org/10.21831/didaktika.v7i2.80220

Azizah, U., Ibrahim, & Hasni. (2026). *Pemanfaatan media pembelajaran berbasis digital dalam mata pelajaran IPS di sekolah dasar*. *Pendas: Jurnal Ilmiah Pendidikan Dasar, 11*(02), 248-258. https://doi.org/10.23969/jp.v11i02.44886

Backfisch, I., Lachner, A., Stürmer, K., & Scheiter, K. (2021). Variability of teachers' technology integration in the classroom: A matter of utility! *Computers & Education, 166*, Article 104159. https://doi.org/10.1016/j.compedu.2021.104159

Baihaqi, M. R., Ristono, W., & Lidinillah, D. A. M. (2018). *Pengembangan media Kartu Nusantara untuk pembelajaran IPS kelas IV SDN pada materi keanekaragaman suku bangsa dan budaya*. *Pedadidaktika: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar, 5*(2), 47-58. http://ejournal.upi.edu/index.php/pedadidaktika/index

Barokah, T., Sapriani, M., Cahyani, V. J., Astin, H., Negara, C. M., Melany, S. D., Sofwan, M., & Khoirunnisa. (2025). *Kesulitan guru dalam mengoptimalkan media pembelajaran berbasis teknologi dalam pembelajaran IPS di sekolah dasar*. *Pendas: Jurnal Ilmiah Pendidikan Dasar, 10*(02), 290-299. https://doi.org/10.23969/jp.v10i02.23819

Barta, A., Fodor, L. A., Tamas, B., & Szamoskozi, I. (2022). The development of students' critical thinking abilities and dispositions through the concept mapping learning method: A meta-analysis. *Educational Research Review, 37*, Article 100481. https://doi.org/10.1016/j.edurev.2022.100481

Barz, N., Benick, M., Dörrenbächer-Ulrich, L., & Perels, F. (2024). The effect of digital game-based learning interventions on cognitive, metacognitive, and affective-motivational learning outcomes in school: A meta-analysis. *Review of Educational Research, 94*(2), 193-227. https://doi.org/10.3102/00346543231167795

Bauml, M. (2023). "Fitting it in": Elementary teachers talk about social studies instruction in public school classrooms. *The Journal of Social Studies Research, 47*(3-4), 147-160. https://doi.org/10.1177/23522798231206188

Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology, 18*(3), 328-352. https://doi.org/10.1080/14780887.2020.1769238

Brown, M., McGrath, R. E., Bier, M. C., Johnson, K., & Berkowitz, M. W. (2023). A comprehensive meta-analysis of character education programs. *Journal of Moral Education, 52*(2), 119-138. https://doi.org/10.1080/03057240.2022.2060196

Bulkis, I., Tahir, M., & Sakkir, G. (2025). The EFL teachers' implementation of 6C skills (critical thinking, creativity, collaboration, communication, citizenship, and character) of 21st century skills. *EduLine: Journal of Education and Learning Innovation, 5*(2), 262-273. https://doi.org/10.35877/454ri.eduline3927

Butler, H. A. (2024). Predicting everyday critical thinking: A review of critical thinking assessments. *Journal of Intelligence, 12*(2), Article 16. https://doi.org/10.3390/jintelligence12020016

Candra, Suardi, & Arifin, J. (2025). *Pengembangan media pembelajaran Manarang AR pada mata pelajaran IPAS di sekolah dasar*. *Jurnal Pendidikan Ilmu Pengetahuan Sosial*

Indonesia, 10(3), 285-301. http://dx.doi.org/10.26737/jpipsi.v10i3.6950

Chang, H.-Y., Binali, T., Liang, J.-C., Chiou, G.-L., Cheng, K.-H., Lee, S. W.-Y., & Tsai, C.-C. (2022). Ten years of augmented reality in education: A meta-analysis of (quasi-) experimental studies to investigate the impact. *Computers & Education, 191*, Article 104641. https://doi.org/10.1016/j.compedu.2022.104641

Choirunnisa, M., & Arini, N. W. (2023). *Pengembangan media pembelajaran Polysoc (Monopoly Social) untuk pembelajaran IPS kelas V sekolah dasar*. *Research and Development Journal of Education, 9*(2), 788. https://doi.org/10.30998/rdje.v9i2.19232

Chumairah, L., & Nurmairina, N. (2024). *Pengembangan media pembelajaran IPS berbasis multimedia interaktif sebagai inovasi pembelajaran bagi siswa SD*. *Cybernetics: Journal Educational Research and Social Studies, 5*(1), 1-10. https://doi.org/10.51178/cjerss.v5i1.1844

Cochon Drouet, O., Lentillon-Kaestner, V., & Margas, N. (2023). Effects of the Jigsaw method on student educational outcomes: Systematic review and meta-analyses. *Frontiers in Psychology, 14*, Article 1216437. https://doi.org/10.3389/fpsyg.2023.1216437

Cromley, J. G., Chen, R., & Lawrence, L. (2023). Meta-analysis of STEM learning using virtual reality: Benefits across the board. *Journal of Science Education and Technology, 32*(3), 355-364. https://doi.org/10.1007/s10956-023-10032-5

Fernández-Sánchez, M. R., Garrido-Arroyo, M. d. C., & Porras-Masero, I. (2022). Curricular integration of digital technologies in teaching processes. *Frontiers in Education, 7*, Article 1005499. https://doi.org/10.3389/feduc.2022.1005499

Fitri, A. N., & Hadi, M. S. (2024). *Pemanfaatan media pembelajaran digital pada pembelajaran IPS di sekolah dasar*. *Jurnal Tarbiyah dan Ilmu Keguruan Borneo, 5*(2), 133-146. https://doi.org/10.21093/jtikborneo.v5i2.6995

Fütterer, T., Scherer, R., Scheiter, K., Stürmer, K., & Lachner, A. (2023). Will, skills, or conscientiousness: What predicts teachers' intentions to participate in technology-related professional development? *Computers & Education, 198*, Article 104756. https://doi.org/10.1016/j.compedu.2023.104756

Godaert, E., Aesaert, K., Voogt, J., & van Braak, J. (2022). Assessment of students' digital competences in primary school: A systematic review. *Education and Information Technologies, 27*(7), 9953-10011. https://doi.org/10.1007/s10639-022-11020-9

Hidayat, A. G., & Aulia, A. (2024). Elementary school social studies learning assessment instrument. *Insights: Journal of Primary Education Research, 1*(1), 25-31. https://doi.org/10.59923/insights.v1i1.73

Hutapea, K., Dewanti, A., Azzahra, A., & Indriayu, M. (2026). *Analisis model pembelajaran IPS dalam penguatan keterampilan 6C pada kurikulum sekolah dasar: Kajian systematic literature review*. *Indo Green Journal, 4*(2), 788-801. https://doi.org/10.31004/green.v4i2.298

Jiménez Sierra, Á. A., Ortega Iglesias, J. M., Cabero-Almenara, J., & Palacios-Rodríguez, A. (2023). Development of the teacher's technological pedagogical content knowledge (TPACK) from the lesson study: A systematic review. *Frontiers in Education, 8*, Article 1078913. https://doi.org/10.3389/feduc.2023.1078913

Kaczkó, É., & Ostendorf, A. (2023). Critical thinking in the community of inquiry framework: An analysis of the theoretical model and cognitive presence coding schemes. *Computers & Education, 193*, Article 104662. https://doi.org/10.1016/j.compedu.2022.104662

Khatimah, H., Wati, N. J., Anggraini, S., Wahyuni, A. D., Afifah, R., Ananda, N., & Khoirunnisa.

(2025). *Pengembangan model pembelajaran IPS yang interaktif dan kontekstual untuk meningkatkan pemahaman siswa*. *Pendas: Jurnal Ilmiah Pendidikan Dasar, 10*(01), 36-46. https://doi.org/10.23969/jp.v10i01.23653

Koçak, Ö., Çoban, M., Aydin, A., & Çakmak, N. (2021). The mediating role of critical thinking and cooperativity in the 21st century skills of higher education students. *Thinking Skills and Creativity, 42*, Article 100967. https://doi.org/10.1016/j.tsc.2021.100967

Kurniawati, L., Ganda, N., & Mulyadiprana, A. (2021). *Pengembangan media pembelajaran berbasis permainan monopoli pada pelajaran IPS SD*. *Pedadidaktika: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar, 8*(4), 860-873. https://doi.org/10.17509/pedadidaktika.v8i4.41752

Lahamado, I., Lukman, & Zulnurain. (2025). Literature analysis: The development of interactive learning media using the Canva application in social studies learning in elementary school. *Pedagogik Journal of Islamic Elementary School, 8*(2), 585-596. https://doi.org/10.24256/pijies.v8i2.7628

Lee, K. M., Sturm, S., & Giacaman, N. (2022). A systematic review of primary school teachers' experiences with digital technologies curricula. *Education and Information Technologies, 27*(5), 6357-6375. https://doi.org/10.1007/s10639-022-11127-z

Li, S., Liu, Y., & Su, Y.-S. (2022). Differential analysis of teachers' technological pedagogical content knowledge (TPACK) abilities according to teaching stages and educational levels. *Sustainability, 14*(12), Article 7176. https://doi.org/10.3390/su14127176

Marifah, S., & Amaliyah, N. (2022). *Pengembangan media pembelajaran interaktif berbasis Google Slide pada mata pelajaran IPS sekolah dasar*. *Jurnal Basicedu, 6*(4), 7563-7572.

Mohebi, L. (2021). Theoretical models of integration of interactive learning technologies into teaching: A systematic literature review. *International Journal of Learning, Teaching and Educational Research, 20*(12), 232-254. https://doi.org/10.26803/ijlter.20.12.14

Muhammad, Wibowo, Z., & Wibowo, M. Z. (2023). *Implementasi pendidikan karakter tanggung jawab mampu meningkatkan hasil belajar siswa*. *Jurnal Bintang Pendidikan Indonesia (JUBPI), 1*(1).

Nafian, R. K., Widayanti, U. A., & Rahmawati, I. (2024). *Penggunaan media Wordwall sebagai evaluasi pembelajaran IPAS kelas IV SD Negeri 1 Gumul*. *Jurnal Teknologi Pendidikan dan Pembelajaran, 01*(04), 747-750.

Narmi, Y., Montessori, M., Fitria, Y., & Adnan, M. F. (2021). *Pemanfaatan sarana dan sumber belajar pada pembelajaran IPS di sekolah dasar*. *Jurnal Basicedu, 5*(6), 6144-6149. https://doi.org/10.31004/basicedu.v5i6.1774

Nasution, H. A. R., & Sitepu, M. S. (2025). *Pembelajaran berbasis literasi dan numerasi untuk meningkatkan kemampuan berpikir kritis peserta didik pada mata pelajaran IPS kelas IV SD Muhammadiyah 18*. *Pendas: Jurnal Ilmiah Pendidikan Dasar, 10*(03), 439-449.

Nawir, M., Sentya, M., Firdaus, A., & Faisal, S. Z. A. (2026). *Pengembangan media pembelajaran IPS di sekolah dasar*. *DIKSI: Jurnal Kajian Pendidikan dan Sosial, 7*(1), 181-189. https://doi.org/10.53299/diksi.v7i1.3867

Nduru, S. M., Manurung, E. R., & Ginting, S. (2022). *Hubungan hasil belajar PKn dengan keterampilan kewarganegaraan (civic skill) siswa kelas XI SMA Etis Landia Medan tahun ajaran 2021/2022*. *Jurnal Pendidikan Pancasila dan Kewarganegaraan, 4*, 22-32.

Ngatari, & Novianti, U. (2021). *Studi pustaka penggunaan model pembelajaran IPS terpadu di sekolah dasar*. *Journal of Social Knowledge Education (JSKE), 2*(1), 16-20. https://doi.org/10.37251/jske.v2i1.376

Nurdiansyah, Rahma, A. R., Trisnawati, P., Rofatunnuroh, & Maria, S. (2024). *Pengembangan model pembelajaran kolaboratif untuk meningkatkan kemampuan problem solving siswa dalam pembelajaran IPS di SD*. *Jurnal Pendidikan Tambusai, 8*(2), 21705-21718.

Nurfadhillah, S., Anggraeni, S., Rahmanda, F. P., Ristavania, F., & Kurniawan, W. (2021). *Pengembangan media berbasis PowerPoint dalam pembelajaran IPS untuk siswa Sekolah Dasar Negeri Pinang 1*. *Jurnal Pendidikan dan Ilmu Sosial Nusantara, 3*(1), 135-150. https://ejournal.stitpn.ac.id/index.php/nusantara/article/view/1283

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ, 372*, Article n71. https://doi.org/10.1136/bmj.n71

Pratiwi, E. A., Witono, A. H., & Jaelani, A. K. (2022). *Keterampilan komunikasi siswa kelas V SDN 32 Cakranegara Kecamatan Sandubaya Kota Mataram tahun ajaran 2021/2022*. *Jurnal Ilmiah Profesi Pendidikan, 7*(3b), 1639-1646. https://doi.org/10.29303/jipp.v7i3b.832

Prayitno, H. F., Aziz, R. A., & Turmudi, H. (2023). *Pengembangan multimedia interaktif dalam pembelajaran IPS materi sumber daya alam kelas IV SD/MI*. *Jurnal Penelitian Sistem Informasi (JPSI), 1*(4), 01-11. https://doi.org/10.54066/jpsi.v1i4.853

Qurrotaini, L., & Putri, D. A. (2024). *Pengembangan media pembelajaran "MAPENA" mainan peta anak pada pembelajaran IPS SD*. *Jurnal Holistika, 7*(2), 131. https://doi.org/10.24853/holistika.7.2.131-137

Rayhana, A. N. (2024). *Analisis implementasi projek penguatan profil pelajar Pancasila sebagai upaya peningkatan keterampilan komunikasi interpersonal dan kolaborasi siswa*. *Jurnal Teknologi Pendidikan, 1*(4), 10. https://doi.org/10.47134/jtp.v1i4.555

Richardson, J. W., Martin, F., & Sauers, N. (2021). Systematic review of 15 years of research on digital citizenship: 2004-2019. *Learning, Media and Technology, 46*(3), 267-283. https://doi.org/10.1080/17439884.2021.1941098

Rosalinda, & Kurnia, I. R. (2024). *Pengembangan media pembelajaran berbasis aplikasi digital Prezi untuk meningkatkan minat belajar siswa pada mata pembelajaran IPS kelas V*. *Pendas: Jurnal Ilmiah Pendidikan Dasar, 09*(04), 159-166. https://doi.org/10.23969/jp.v9i4.20291

Royani, R., Ahda, S., & Silalahi, S. (2024). *Model pembelajaran deep learning untuk meningkatkan pemahaman IPS di sekolah dasar: Studi kasus di SD Global Garuda Nusantara*. *Jurnal Ilmiah Guru Madrasah, 3*(2), 77-88. https://doi.org/10.69548/jigm.v3i2.27

Safira, M., & Veri, J. (2026). *Systematic literatur review dengan metode PRISMA: Analisis penerapan konsep SDM terhadap efektivitas pengambilan keputusan di lingkungan organisasi*. *Journal of Science Education and Management Business (JOSEAMB), 5*(1), 461-472.

Sahrina, A., & El-Yunusi, M. Y. M. (2024). *Analisis kemampuan literasi numerasi melalui soal cerita dalam meningkatkan kemampuan berpikir kritis di SDN Candipari 2 Porong*. *Pendas: Jurnal Ilmiah Pendidikan Dasar, 9*(4), 39-48.

Salsabila, N., Nadella, Nazhira, N., Andini, N., Nadia, N., & Yusnaldi, E. (2024). *Pembelajaran IPS dalam pendidikan karakter anak SD/MI*. *Journal on Education, 06*(04), 20460-20465. https://doi.org/10.31316/esjurnal.v12i2.4545

Setiawan, H., Nafiati, D. A., & Munadi. (2025). *Validitas konstruk instrumen keterampilan abad 21 pada pembelajaran IPAS berbasis problem based learning berbantuan audiovisual*. *Pendas: Jurnal Ilmiah Pendidikan Dasar, 10*(04), 1221-1229. https://doi.org/10.23969/jp.v10i4.37372

Setiawan, H., Nafiati, D. A., & Munadi. (2026). Confirmatory factor analysis of a 21st-century skills instrument in audiovisual-assisted problem-based learning. *Jurnal Paedagogy: Jurnal Penelitian dan Pengembangan Pendidikan, 13*(1), 43-51. https://doi.org/10.33394/jp.v13i1.18801

Setiawati, T., Haki Pranata, O., & Halimah, M. (2019). *Pengembangan media permainan papan pada pembelajaran IPS untuk siswa kelas V sekolah dasar*. *Pedadidaktika: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar, 6*(1), 163-174. http://ejournal.upi.edu/index.php/pedadidaktika/index

Sudiarti, N. P., Lasmawan, I. W., & Kertih, I. W. (2025). *Implementasi model pembelajaran berbasis TPACK dalam pembelajaran IPS di sekolah dasar*. *Journal of Education Action Research, 9*(2), 250-258. https://doi.org/10.23887/jear.v9i2.87135

Sundari, A., Fauzia, F. I., & Rustini, T. (2023). *Pengembangan media pembelajaran IPS pada buku tema 1 ASEAN untuk siswa kelas VI SD*. *Dirasah: Jurnal Studi Ilmu dan Manajemen Pendidikan Islam, 6*(1), 104-111. https://doi.org/10.58401/dirasah.v6i1.782

Suryani, I., Permatasari, A., & Jayanti. (2024). *Pengembangan multimedia interaktif berbasis Macromedia Flash pada mata pelajaran IPA kelas V sekolah dasar*. *Jurnal Inovasi, Evaluasi, dan Pengembangan Pembelajaran (JIEPP), 4*(3), 499-508. https://doi.org/10.31980/caxra.v4i1.1040

Tadlaoui-Brahmi, A., Çuko, K., & Alvarez, L. (2022). Digital citizenship in primary education: A systematic literature review describing how it is implemented. *Social Sciences & Humanities Open, 6*(1), Article 100348. https://doi.org/10.1016/j.ssaho.2022.100348

Thornhill-Miller, B., Camarda, A., Mercier, M., Burkhardt, J.-M., Morisseau, T., Bourgeois-Bougrine, S., Vinchon, F., El Hayek, S., Augereau-Landais, M., Mourey, F., Feybesse, C., Sundquist, D., & Lubart, T. (2023). Creativity, critical thinking, communication, and collaboration: Assessment, certification, and promotion of 21st century skills for the future of work and education. *Journal of Intelligence, 11*(3), Article 54. https://doi.org/10.3390/jintelligence11030054

Ting, F. S. T., Shroff, R. H., Lam, W. H., Garcia, R. C. C., Chan, C. L., Tsang, W. K., & Ezeamuzie, N. O. (2023). A meta-analysis of studies on the effects of active learning on Asian students' performance in science, technology, engineering and mathematics (STEM) subjects. *The Asia-Pacific Education Researcher, 32*(3), 379-400. https://doi.org/10.1007/s40299-022-00661-6

Utama, E. G., Hendriana, E. C., & Sukardi. (2023). *Pengaruh model kooperatif Quiz-Quiz Trade berbantuan media audio visual terhadap hasil belajar IPS SD*. *Jurnal IKA: Ikatan Alumni PGSD UNARS, 13*(1), 173-185. https://doi.org/10.36841/pgsdunars.v13i1.3091

Utami, S., & Giyartini, R. (2021). *Pengembangan media puzzle berbasis Make A Match pada materi negara ASEAN dalam pembelajaran IPS kelas VI SD*. *Pedadidaktika: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar, 8*(4), 827-839. https://ejournal.upi.edu/index.php/pedadidaktika/article/view/41749

Vajen, B., Kenner, S., & Reichert, F. (2023). Digital citizenship education: Teachers' perspectives and practices in Germany and Hong Kong. *Teaching and Teacher Education, 125*, Article 104038. https://doi.org/10.1016/j.tate.2023.104038

Wahida, F., Rahman, N., & Gonggo, T. (2015). *Pengaruh model pembelajaran berbasis proyek*

terhadap keterampilan berpikir kreatif dan hasil belajar siswa kelas X SMA Negeri 1 Parigi. *Sains dan Teknologi Tadulako, 4*(3), 36-43.

Wahyuningtyas, E. J., Zulfiati, H. M., Nisa, A. F., & Barriyah, I. Q. (2025). *Penguatan keterampilan 6C terintegrasi ajaran Tamansiswa Tri N pada proyek diorama bentang alam*. *Jurnal Manajemen Pendidikan dan Ilmu Sosial, 6*(5), 4021-4027. https://doi.org/10.38035/jmpis.v6i5.5081

Wati, S. (2025). *Strategi pembelajaran IPS yang efektif untuk siswa sekolah dasar*. *Intelektual: Jurnal Ilmiah Multidisiplin Mahasiswa dan Akademisi, 1*(1), 95-105. https://doi.org/10.64690/intelektual.v1i1.152

Wattimena, H. S., Suhandi, A., & Setiawan, A. (2014). *Profil penyelenggaraan praktikum fisika sekolah sebagai penyiapan mengembangkan kreativitas calon guru*. *Jurnal Pendidikan MIPA, 15*(2), 71-80. https://doi.org/10.23960/jpmipa/v15i2.pp71-80

Wen, Y., Wu, L., He, S., Ng, N. H. E., Teo, B. C., Looi, C.-K., & Cai, Y. (2023). Integrating augmented reality into inquiry-based learning approach in primary science classrooms. *Educational Technology Research and Development, 71*(4), 1631-1651. https://doi.org/10.1007/s11423-023-10235-y

Wijaya, S., Inayah, L., Sapuroh, A., Awaliah, A., & Patmawati. (2024). *Meningkatkan kemampuan berpikir kritis pada siswa sekolah dasar melalui pembelajaran IPS*. *Jurnal Penelitian Ilmiah Multidisiplin, 8*(1), 288-292. https://sejurnal.com/pub/index.php/jpim/article/download/525/601/1906

Wulandari, I., Ningsih, S., & Aziz, S. (2025). *Pengembangan model pembelajaran IPS yang berbasis masalah dan proyek di sekolah dasar*. *Arini: Jurnal Ilmiah dan Karya Inovasi Guru, 2*(1), 16-32. https://doi.org/10.71153/arini.v2i1.300

Yanti, M., Rahayu, D. P., & Rabbani, A. (2024). Analysis of the implementation of science learning based on teachers' technological pedagogical and content knowledge (TPACK) capabilities. *Journal of Science Education Research, 8*(2), 42-55. https://doi.org/10.21831/jser.v8i1.70762

Yun, M., & Crippen, K. J. (2024). The use of educational technology in inquiry-based elementary science education: A systematic review. *International Journal of Science Education, 46*(12), 1256-1279. https://doi.org/10.1080/09500693.2023.2284689

Zahro, L. (2022). *Model pembelajaran inkuiri sosial dalam pembelajaran IPS SD/MI*. *Jurnal Tarbiyah Darussalam, 10*(1), 54-63. https://jurnal.iaidarussalam.ac.id/index.php/tarbiyah/article/view/45/33

Zhang, L., & Ma, Y. (2023). A study of the impact of project-based learning on student learning effects: A meta-analysis study. *Frontiers in Psychology, 14*, Article 1202728. https://doi.org/10.3389/fpsyg.2023.1202728

Zhang, W., Guan, Y., & Hu, Z. (2024). The efficacy of project-based learning in enhancing computational thinking among students: A meta-analysis of 31 experiments and quasi-experiments. *Education and Information Technologies, 29*, 14513-14545. https://doi.org/10.1007/s10639-023-12392-2