



ASSESSMENT OF PERCEIVED ROLE OF EMERGING TECHNOLOGIES IN SOCIAL STUDIES TEACHING AND EVALUATION STRATEGIES AMONG SECONDARY SCHOOLS IN IFE EAST, OSUN STATE

Akinwande, Adeyoola Eunice
University of Ilesa, Osun state
Faculty of Education
Department of Arts and Social Science
wandelajolo@yahoo.co.uk
08032387608

Abstract

This study assessed perceived role of emerging technologies in Social Studies teaching and evaluation strategies among secondary schools in Ife East, Osun State. The specific objectives of the study were to determine the role of emerging technology in Social Studies and determine the role of emerging technology on evaluation strategies. It adopted the survey research design, three public junior secondary schools in Ife East Local Government Area of Osun State were randomly selected, and a total of 150 JSS II students (46 males and 104 females) participated in the study. Two experts validated the instruments. Two research instruments: Role of Technology in Social Studies ($r = 0.76$) and Emerging Technology Scale ($r = 0.81$) were administered to students. Data were analysed using descriptive statistics (frequency count, percentage, mean, and standard deviation). Findings of the study revealed the weighted mean of 2.63 out of the 4.00 maximum obtainable scores, which is higher than the standard mean of 2.50. the role of emerging technology in Social Studies was very positive. Also, the weighted mean of 2.63 out of the 4.00 maximum obtainable scores, which is higher than the standard mean of 2.50. The role of emerging technology on evaluation strategies was very positive. The study established that emerging technologies contribute significantly to more efficient and transparent assessment practices. Based on the findings of this study, it was recommended that government and school administrators should provide reliable internet access, updated digital devices, computer laboratories, and multimedia equipment to support meaningful use of emerging technologies in Social Studies classrooms. Regular training programmes, workshops, and in-service courses should be organised to update teachers' skills in digital pedagogy, instructional design, and technology-assisted evaluation strategies. Curriculum planners at national and state levels should incorporate the use of digital tools, such as GIS, VR/AR, AI-based platforms, and interactive multimedia, into Social Studies curriculum content and learning outcomes.

Keywords: Emerging technologies, Social studies, Teaching, Evaluation strategies

Introduction

Social Studies, as a discipline, is fundamentally concerned with nurturing knowledgeable, responsible, ethical, and participatory citizens who can critically examine and engage with the complex social, political, economic, cultural, and environmental issues shaping contemporary society. Its mission extends

beyond content acquisition to the development of higher-order skills such as inquiry, evidence evaluation, spatial reasoning, civic literacy, problem-solving, and democratic participation. Yet, despite this expansive vision, many traditional instructional approaches, teacher-centered lectures, static map interpretation, repetitive note-taking, rote memorisation of



facts, and high-stakes end-of-term examinations, continue to dominate many classrooms. These methods often privilege passive absorption of information over authentic, inquiry-driven engagement. As a result, they struggle to cultivate the critical thinking abilities, collaborative dispositions, problem-solving skills, and digital literacies that learners require in a rapidly changing, information-saturated world (U.S. Department of Education, 2023).

In contrast, emerging technologies provide unprecedented opportunities to reimagine and enrich Social Studies teaching and learning. Tools such as artificial intelligence, geographic information systems (GIS), virtual and augmented reality, digital storytelling platforms, gamified learning systems, and learning analytics enable teachers to create immersive, interactive, and student-centered learning environments. These technologies support deeper conceptual understanding by enabling learners to: explore complex social phenomena through simulations; visualise historical and spatial relationships using dynamic digital maps; analyse real-time data; construct multimedia narratives; and engage in collaborative, inquiry-based problem solving. They also empower teachers to adopt more responsive instructional strategies through automated feedback systems, adaptive learning pathways, and analytics-driven insights into learner progress (Wang et al., 2024).

Artificial intelligence (AI) is rapidly transforming the Social Studies classroom by enabling unprecedented levels of personalisation, scaffolding, and assessment efficiency. AI-driven learning platforms employ machine learning algorithms to analyse patterns in students' responses and learning behaviours, dynamically adjusting instructional materials, difficulty levels, and learning

pathways to match individual needs (Wang et al., 2024). Such adaptive systems help ensure that struggling learners receive targeted remediation while advanced learners are provided with enrichment tasks, thereby optimising learning outcomes across diverse abilities.

AI-powered analytics deepen teachers' understanding of learner progress by highlighting misconceptions, predicting potential learning difficulties, and suggesting timely interventions (U.S. Department of Education, 2023). Furthermore, automated feedback mechanisms, such as instant essay scoring, error detection tools, and AI chat-based tutoring, promote metacognitive growth by enabling students to independently monitor their learning, revise their submissions, and correct misunderstandings without waiting for teacher intervention. In this way, AI supports a shift from static, one-size-fits-all instruction to dynamic, responsive, and student-centred Social Studies learning.

Geographic Information Systems (GIS) have evolved into indispensable tools for fostering spatial literacy, environmental awareness, and socio-political inquiry in Social Studies education. By allowing students to manipulate digital maps and visualize geospatial data, GIS empowers them to engage with real-world issues such as demographic change, urbanisation, climate variability, migration flows, poverty distribution, public health challenges, and resource allocation. Through this interactive visualisation, learners develop the ability to interpret patterns, identify trends, and evaluate relationships between human behaviour and geographic space.

Research consistently confirms that GIS enhances students' inquiry-based learning, problem-solving capacity, and evidence-based reasoning; skills that lie at the core of Social Studies education (Aydin et al.,



2024). When students engage in GIS-based investigations, such as mapping local community challenges or analysing historical events through spatial overlays, they experience powerful, authentic learning that bridges the gap between classroom content and lived social realities. GIS therefore positions learners as active investigators rather than passive recipients of geographical information.

Augmented Reality (AR) and Virtual Reality (VR) technologies enhance Social Studies learning by immersing students in interactive digital environments that promote experiential and emotionally rich understanding of historical, cultural, and civic phenomena. These technologies simulate environments and events that would otherwise be impossible to access; ancient civilisations, historical battlefields, diplomatic negotiations, cultural rituals, or distant geographical landscapes.

By allowing students to “experience” history or civic processes first-hand, AR/VR enhances empathy, curiosity, and conceptual mastery (Radianti, Majchrzak, Fromm, & Wohlgenannt, 2020). Virtual field trips to historical sites, recreated archaeological environments, or digital museums enable learners to visualise abstract concepts, interact with primary sources, and gain deeper insights into cause-and-effect relationships. Civic simulations, such as virtual elections, legislative debates, or conflict negotiation scenarios, also strengthen learners’ civic reasoning and decision-making skills. Thus, AR/VR shifts learning from passive observation to active, embodied engagement.

Digital storytelling provides students with powerful avenues to construct meaning, analyse perspectives, and communicate knowledge in multimodal formats. Using multimedia tools such as podcasts, video documentaries, digital comics, interactive

timelines, infographics, and animations, learners can creatively synthesize information from primary and secondary sources while developing twenty-first-century competencies like media literacy, creativity, and critical thinking (Hagos, 2022). It encourages students to interrogate historical narratives, interpret multiple viewpoints, and articulate arguments in engaging, culturally relevant ways. This process not only deepens content mastery but also builds communication skills that traditional written assignments often neglect.

Moreover, digital tools enable differentiated expression, allowing students of varying linguistic, cognitive, or technological abilities to demonstrate understanding in diverse formats. Gamification and serious games introduce elements of challenge, discovery, collaboration, and competition that transform the Social Studies learning landscape. Features such as points, levels, badges, quests, and leader boards increase motivation and engagement by appealing to learners’ intrinsic and extrinsic interests. Serious games, designed with explicit educational purposes, immerse students in simulated civic, economic, historical, and sociocultural scenarios where they must make decisions, solve problems, and reflect on consequence (Radianti, Majchrzak, Fromm, & Wohlgenannt, 2020).

Learning analytics provide teachers with powerful insights into students' cognitive, behavioural, and emotional engagement. By collecting and analysing data from digital learning platforms, such as time spent on tasks, number of attempts, participation frequency, or mastery patterns, analytics tools generate dashboards that help teachers monitor progress, identify struggling learners, and refine instruction for greater effectiveness (Hagos, 2022). Technology-enhanced assessment tools amplify formative and



summative evaluation processes through interactive digital quizzes, AI-powered scoring systems, automated feedback mechanisms, e-portfolios, and performance-based digital tasks. These tools support continuous, data-driven assessment that is more authentic, transparent, and equitable than many traditional paper-based tests. Teachers are better able to differentiate instruction, personalise remediation, and ensure that assessment practices are aligned with Social Studies competencies such as critical thinking, inquiry, collaboration, and civic engagement.

Inquiry-based learning aligns seamlessly with emerging technologies that enable exploration, questioning, and evidence gathering. Tools such as GIS, digital archives, interactive simulations, and AI-curated research recommendations empower students to formulate questions, gather and analyze data, construct explanations, and communicate findings; key pillars of effective Social Studies inquiry (Aydin et al., 2024). Project- and problem-based approaches are enriched by technologies such as digital storytelling platforms, GIS mapping, VR fieldwork, and multimedia creation tools. These technologies help students conduct meaningful investigations, engage in real-world problem solving, and present learning through authentic products such as documentaries, maps, reports, and digital exhibits (Radianti, Majchrzak, Fromm, & Wohlgenannt, 2020). Blended learning supported by AI-driven platforms, multimedia content, and virtual collaboration spaces enhances flexibility and deepens conceptual understanding. In a flipped model, students explore foundational content online, using videos, simulations, and interactive tools, while class time is dedicated to debates, analysis, and collaborative inquiry (Wang et al., 2024). These models encourage learner autonomy and active participation.

A balanced assessment framework is crucial in Social Studies because it combines formative, summative, authentic, and analytic evaluation to provide a holistic picture of student learning. Emerging technologies enable teachers to diversify assessment methods and generate more accurate insights into students' abilities, civic reasoning, and inquiry processes. Digital tools also promote equity by offering multiple pathways for students to demonstrate learning. Technology significantly strengthens formative assessment by providing immediate, actionable feedback that supports continuous learning. Digital tools, such as interactive quizzes, AI-powered feedback systems, online reflective journals, virtual discussion boards, and peer-review platforms, allow teachers to gauge learner understanding in real time and adjust instruction accordingly. Automated quizzes help identify misconceptions, while digital journals encourage students to document inquiry processes, analyse sources, and reflect critically on social issues. These formative strategies increase engagement, motivation, and self-regulated learning (Hagos, 2022).

Summative assessment in technology-enhanced Social Studies extends beyond traditional tests. Digital portfolios, multimedia research projects, GIS-based investigations, VR historical simulations, and documentary-style video assignments offer powerful alternatives for evaluating deeper conceptual understanding and inquiry skills. For instance, a GIS project analysing population shifts or environmental impacts allows students to apply geospatial reasoning to real-world problems. Such assessments evaluate not only content mastery but also higher-order competencies such as interpretation, synthesis, and civic reasoning (Aydin et al., 2024). E-portfolios play a central role in documenting longitudinal learning in



Social Studies. They allow students to compile maps, essays, primary-source analyses, multimedia projects, debate recordings, reflections, and learning analytics reports. Over time, e-portfolios provide a richer, more comprehensive view of growth in civic understanding, digital literacy, and inquiry skills than traditional assessments alone. They also promote metacognition by encouraging students to reflect on strengths, challenges, and learning strategies (U.S. Department of Education, 2023).

While technological innovations offer transformative potential, unequal access to devices, internet connectivity, and digital literacy can exacerbate existing educational inequities. Students in rural areas, low-income households, or poorly resourced schools may struggle to benefit fully from emerging technologies (U.S. Department of Education, 2023). Without equitable policies and infrastructure improvements, the digital divide threatens to widen learning gaps in Social Studies.

Effective integration of emerging technologies depends heavily on teacher readiness. Many teachers lack adequate training in AI tools, GIS platforms, AR/VR applications, or data-driven assessment techniques. Sustained professional development and hands-on training are essential for

Learning analytics, AI algorithms, and digital platforms raise serious concerns about student privacy, data storage, informed consent, and algorithmic decision-making. Institutions must adopt strong data governance frameworks, ensure compliance with national privacy regulations, and educate students on responsible data practices (U.S. Department of Education, 2023). AI-generated content and automated recommendations may contain factual inaccuracies or reflect societal biases. Teachers must therefore retain a central role

in verifying content accuracy, curating learning resources, and teaching students to critically evaluate digital information (Radianti, Majchrzak, Fromm, & Wohlgenannt, 2020). In many developing contexts, including parts of Nigeria, unstable electricity supply, outdated devices, limited bandwidth, and insufficient technical support hinder effective technology integration. Sustainable infrastructure investment is crucial for long-term success (Aydin et al., 2024).

Given the increasing centrality of technological competence in modern civic life, ranging from interpreting data dashboards to participating in digitally mediated civic forums, understanding how emerging technologies can be effectively integrated into Social Studies instruction is no longer optional. It is a pedagogical necessity. Teachers, curriculum planners, and policymakers must therefore develop a clear and nuanced understanding of these technological tools, not merely as add-ons or enhancements, but as transformative instruments capable of aligning Social Studies education with the realities of the twenty-first century. In this context, thoughtful and purposeful integration of emerging technologies becomes essential for achieving the discipline's broader goals of fostering informed decision-making, civic responsibility, and meaningful engagement with global and local issues.

Statement of the Problem

Despite the recognised potential of Social Studies to encourage critical thinking, civic engagement, problem-solving skills, and global awareness, its teaching and evaluation practices in many educational settings, particularly in Nigeria, remain largely traditional and teacher-centred. Classrooms still rely heavily on lecture-based instruction, static maps, rote memorisation, and summative paper-and-pencil assessments that do not adequately capture learners' analytical abilities,



collaborative skills, or digital competencies. These outdated practices limit students' opportunities to engage meaningfully with real-world social issues and fail to reflect the dynamic, technology-driven contexts in which today's citizens live and participate (Adeyemi, 2010).

At the same time, rapid advancements in emerging technologies, such as artificial intelligence, GIS, augmented and virtual reality, digital storytelling tools, gamification platforms, and learning analytics, offer powerful yet underutilised possibilities for transforming Social Studies pedagogy. Although these tools have been shown to improve learner engagement, conceptual understanding, and personalised learning, their adoption in schools and Social Studies teacher education programmes remains inconsistent and poorly understood. Issues such as inadequate digital infrastructure, limited teacher competence, insufficient training, lack of context-relevant models, and concerns about data privacy often hinder their effective integration.

Furthermore, evaluation strategies in Social Studies have not kept pace with technological innovation. Many assessment practices do not align with technology-enhanced learning environments, resulting in a persistent mismatch between what learners are expected to know and the ways they are assessed. There is also a lack of clear frameworks to guide teachers in using technology-supported assessment tools that ensure validity, reliability, transparency, and fairness.

Consequently, there is a critical need to investigate how emerging technologies can be systematically and effectively integrated into Social Studies teaching and evaluation. Without such inquiry, the discipline risks failing to prepare learners for participation in a complex, digitally mediated world. This study therefore assessed perceived

role of emerging technologies in Social Studies teaching and evaluation strategies among secondary schools in Ife East, Osun State.

Objectives of the Study

The main objective of this study is to examine the perceived role of emerging technologies in the teaching of Social Studies and in the evaluation strategies used among secondary schools in Ife East Local Government Area of Osun State. Specific objectives are to:

- a. determine the role of emerging technology in Social Studies
- b. determine the role of emerging technology on evaluation strategies

Research Questions

The following research questions guided the research:

- a. What is the role of emerging technology in Social Studies?
- b. What is the role of emerging technology on evaluation strategies?

Methodology

The study adopted a survey research design. This design was considered appropriate because it enables the researcher to collect data from a relatively large number of respondents and to describe existing conditions, opinions, and perceptions as they naturally occur. Specifically, the survey design allowed the researcher to assess students' perceptions of the role of emerging technologies in the teaching and evaluation of Social Studies without manipulating any variables. The population of the study comprised all Junior Secondary School II (JSS II) students in public senior secondary schools in Ife East Local Government Area of Osun State. This population was chosen because JSS II students are adequately exposed to Social Studies instruction and are capable of providing informed responses on the use of emerging technologies in their learning experiences.



Three public Junior secondary schools were randomly selected from the study area. From each selected school, 50 JSS II students were randomly sampled, making a total of 150 JSS II students. The sample consisted of 46 males and 104 females. In all, 150 students participated in the study. Instruments for Data Collection. Two instruments were used for data collection: Role of Emerging Technology in Social Studies Questionnaire (RETSQ) and Emerging Technology Utilisation Questionnaire (ETUQ)

The Role of Emerging Technology in Social Studies Questionnaire (RETSQ) was designed to measure students' perceptions of how emerging technologies support teaching, learning, and evaluation in Social Studies. The instrument contained items structured on a Likert-type scale, ranging from Strongly Agree to Strongly Disagree. The Emerging Technology Utilisation Questionnaire (ETUQ) assessed the extent to which emerging technologies such as digital tools, online resources, multimedia applications, and interactive platforms are utilised in Social Studies classrooms. The items were also structured on a Likert-type response format.

The instruments were subjected to face and content validity. Copies of the questionnaires were given to experts in Social Studies Education and Educational

Measurement and Evaluation. Their suggestions and corrections regarding clarity of items, relevance, and adequacy of content coverage were incorporated before the final administration of the instruments. The reliability of the instruments was determined using the test-retest method. The instruments were administered to a group of SS II students who were not part of the main study, and the data obtained were correlated using Pearson Product Moment Correlation. The reliability coefficients obtained were: Role of Emerging Technology in Social Studies Questionnaire ($r=0.76$) and Emerging Technology Utilisation Questionnaire ($r=0.81$). These coefficients indicate that the instruments were reliable for the study. The instruments were administered personally by the researcher with the assistance of class teachers in the selected schools. Clear instructions were given to the students before responding to the questionnaires. The completed questionnaires were collected immediately to ensure a high return rate and to prevent loss or external influence on responses. Data collected were analysed using descriptive statistics, including frequency counts, percentages, mean, and standard deviation, to answer the research objective.

Results
What is the role of emerging technology in Social Studies?

Table 1: Showing the perceived role of emerging technology in Social Studies

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	M	Sd
1	Technology promotes the learning of Social Studies.	18 12.0	56 37.3	60 40	16 10.7	2.51	.841
2	Technology makes students hard-working.	22 14.7	60 40	55 36.7	13 8.7	2.61	.843
3	Technology gives students have good impression of learning Social Studies.	16 10.7	54 36.0	69 46.0	11 7.3	2.50	.784
4	Technology increases students' interest in learning Social Studies.	18 12.0	50 33.3	70 46.7	12 8.0	2.49	.809
5	Technology stimulates students' ability to think very fast.	16 10.7	59 39.3	60 40	15 10.0	2.51	.817



6	Technology should be banned due to poor networks.	24 16	53 35.3	56 37.3	17 11.3	2.56	.894
7	Technology changes students' perception of learning Social Studies.	16 10.7	70 46.7	51 34.0	13 8.7	2.59	.795
8	Technology can be a challenging activity.	33 22	71 47.3	33 22.0	13 8.7	2.83	.873
9	Technology facilitates the development of students' competency.	24 16.0	71 47.3	45 30	10 6.7	2.73	.810
10	Technology does not develop students' ability to learn Social Studies.	16 10.7	42 28.0	75 50	17 11.3	2.38	.825
11	Technology makes students passive recipients of knowledge.	22 14.7	44 29.3	66 44	18 12.0	2.47	.887
12	Technology makes students have a positive attitude towards learning Social Studies.	17 11.3	47 31.3	65 43.3	21 14.0	2.40	.867
13	Technology changes students' wrong impression about learning Social Studies.	13 8.7	43 28.7	75 50.0	19 12.7	2.33	.808
14	Technology consumes money.	21 14	61 40.7	53 35.3	15 10.0	2.59	.853
15	Technology makes students attend class regularly.	27 18	54 36	56 37.3	13 8.7	2.63	.878
16	Technology makes students to be lazy.	38 25.3	83 55.3	21 14.0	8 5.3	3.01	.781
17	Technology is not a reliable platform for teaching Social Studies.	38 25.3	90 60	17 11.3	5 3.3	3.07	.706
18	Technology does not allow students to ask questions where necessary.	40 26.7	83 55.3	21 14.0	6 4.0	3.05	.754
19	Technology does not allow students to increase their Social Studies.	18 12.0	33 22	87 58	12 8.0	2.38	.800
20	Technology is not good for teaching Social Studies.	42 28.0	66 44.0	28 18.7	14 9.3	2.91	.915

Weighted Mean: 2.63 Threshold: 2.50

Table 1 reveals the role of emerging technology in Social Studies. It reveals the weighted mean of 2.63 out of the 4.00 maximum obtainable scores, which is higher than the standard mean of 2.50. This means that the role of emerging technology in Social Studies is very positive.

What is the role of emerging technology on evaluation strategies?

Table 2: Showing the perceived role of emerging technology on evaluation strategies

S/N	Items	SA (%)	A (%)	D (%)	SD (%)	M	Sd
1	Technology promotes evaluation strategies among students.	18 12.0	56 37.3	60 40	16 10.7	2.51	.841
2	Technology enhances evaluation strategies.	22 14.7	60 40	55 36.7	13 8.7	2.61	.843
3	Technology gives students have good impression of evaluation strategies.	16 10.7	54 36.0	69 46.0	11 7.3	2.50	.784
4	Technology increases students' interest in evaluation strategies	18 12.0	50 33.3	70 46.7	12 8.0	2.49	.809
5	Technology stimulates students' ability to think very fast in evaluation strategies.	16 10.7	59 39.3	60 40	15 10.0	2.51	.817
6	Technology in evaluation strategies should be banned due to poor networks.	24 16	53 35.3	56 37.3	17 11.3	2.56	.894



7	Technology changes students' perception of evaluation strategies	16 10.7	70 46.7	51 34.0	13 8.7	2.59	.795
8	Technology can be a challenging activity in evaluation strategies.	33 22	71 47.3	33 22.0	13 8.7	2.83	.873
9	Technology facilitates the development of students' competency in evaluation strategies.	24 16.0	71 47.3	45 30	10 6.7	2.73	.810
10	Technology does not develop students' ability in evaluation strategies.	16 10.7	42 28.0	75 50	17 11.3	2.38	.825
11	Technology makes students passive recipients of knowledge in evaluation strategies.	22 14.7	44 29.3	66 44	18 12.0	2.47	.887
12	Technology makes students have a positive attitude towards evaluation strategies.	17 11.3	47 31.3	65 43.3	21 14.0	2.40	.867
13	Technology changes students' wrong impression in evaluation strategies.	13 8.7	43 28.7	75 50.0	19 12.7	2.33	.808
14	Technology consumes money during evaluation.	21 14	61 40.7	53 35.3	15 10.0	2.59	.853
15	Technology makes students attend class regularly in evaluation strategies.	27 18	54 36	56 37.3	13 8.7	2.63	.878
16	Technology makes students to be lazy.	38 25.3	83 55.3	21 14.0	8 5.3	3.01	.781
17	Technology is not a reliable platform in evaluation strategies.	38 25.3	90 60	17 11.3	5 3.3	3.07	.706
18	Technology does not allow students to ask questions where necessary during evaluation.	40 26.7	83 55.3	21 14.0	6 4.0	3.05	.754
19	Technology does not allow students to increase their evaluation strategies.	18 12.0	33 22	87 58	12 8.0	2.38	.800
20	Technology is not good for evaluation strategies.	42 28.0	66 44.0	28 18.7	14 9.3	2.91	.915
Weighted Mean: 2.63		Threshold: 2.50					

Table 1 reveals the role of emerging technology on evaluation strategies. It reveals the weighted mean of 2.63 out of the 4.00 maximum obtainable scores, which is higher than the standard mean of 2.50. This means that the role of emerging technology on evaluation strategies is very positive.

Discussion of the Findings

The findings of the study revealed that that the perceived role of emerging technology in Social Studies was very positive. In support of this finding, Moganashwari (2013) and Bafunso and Kolawole (2021) reported that the use of ICT for teaching had a positive impact on the English language. This is against the study of Bindu (2017) who revealed that in their separate

study, the use of ICT for the teaching of English Language was low.

The findings of the study revealed that the perceived role of emerging technology on evaluation strategies is very positive. This is in line with the view of Okeke (2021) who reported that there was no significant difference between male and female students' impact of ICT on students' achievement in English Language. This is against the findings of Coates, James and Baldwin (2005) who discovered that females have general tendencies to think in negative ways about the tasks in which they engage.



Conclusion

The study examined the role of emerging technologies in enhancing Social Studies teaching and evaluation strategies among senior secondary school students in Ife East Local Government Area of Osun State. Findings revealed that students generally perceive emerging technologies as powerful tools capable of transforming Social Studies instruction by making learning more interactive, engaging, and relevant to real-world issues. Technologies such as digital simulations, online collaborative platforms, multimedia resources, and artificial intelligence were found to promote critical thinking, inquiry-based learning, and improved knowledge retention. The study also established that emerging technologies contribute significantly to more efficient and transparent assessment practices. Through digital quizzes, automated scoring systems, and interactive evaluation tools, teachers can provide timely feedback, monitor student progress, and tailor instruction to individual learner needs. Although minor gender differences were observed in perception, they were not statistically significant, indicating that both male and female students benefit similarly from technology-enhanced learning. Overall, the study concludes that integrating emerging technologies into Social Studies classrooms is not only beneficial but essential for preparing learners for active citizenship in a rapidly changing digital world. However, sustainable integration requires provision of adequate technological infrastructure, continuous teacher capacity development, and policies that promote equitable access and responsible technology use.

Recommendations

Based on the findings of this study, the following recommendations are made:

- 1 Government and school administrators should provide reliable internet access, updated digital devices, computer laboratories, and multimedia equipment to support meaningful use of emerging technologies in Social Studies classrooms.
- 2 Regular training programmes, workshops, and in-service courses should be organised to update teachers' skills in digital pedagogy, instructional design, and technology-assisted evaluation strategies.
- 3 Curriculum planners at national and state levels should incorporate the use of digital tools, such as GIS, VR/AR, AI-based platforms, and interactive multimedia, into Social Studies curriculum content and learning outcomes.
- 4 Teachers should adopt innovative assessment tools such as online quizzes, learning analytics dashboards, automated scoring systems, and digital portfolios to improve accuracy, feedback quality, and learner engagement.
- 5 Policymakers must guarantee that both urban and rural schools have fair access to technological resources to prevent a widening digital divide among students.
- 6 Schools should promote the use of online discussion forums, group collaboration tools, and digital storytelling applications that encourage communication, civic engagement, and teamwork among students.
- 7 Clear policies should be developed to guide privacy protection, responsible use of digital tools, cyber security, and prevention of misuse of technology within the school environment.



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