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## Fostering 21<sup>st</sup> Century Skills through Inquiry-based learning in Social Studies Classroom: A Systematic Review

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### ABSTRACT

Global educational systems are expected to equip students with 21st-century skills. Inquiry-based learning has emerged as an important pedagogical approach that encourages students to develop these 21st-century skills among students. Most of the studies are conducted in STEM areas, but IBL in the social studies discipline remains limited and underexplored. The purpose of this systematic review is to explore how different approaches of IBL support the development of 21st-century skills among secondary schools' students in social studies classrooms by identifying key methods, challenges, and stakeholders'



perspectives. The systematic review following PRISMA guidelines was conducted using 4 databases, i.e., Google Scholar, EBSCO, Science Direct, and ProQuest, in the timeframe from 2014 to 2025. The findings revealed that an inquiry-based pedagogical approach enhances students' 21st-century skills through various instructional strategies such as project-based learning, the problem-based learning approach, the digital storytelling approach and local history inquiry. However, the study also revealed that stakeholders do face many challenges while implementing inquiry-based teaching approaches in classroom settings, like rigid curricula, limited professional training, and institutional barriers that create obstacles to successful implementation in classroom contexts.

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## 1. Introduction:

The inquiry-based approach has emerged as a powerful instructional methodology, transforming how the students learn and engage with abstract ideas. It focuses on students' questioning, investigation, and real-world problem solving (Pedaste et al., 2015; Hmelo-Silver et al., 2007). Inquiry-based learning has gained recognition as an effective educational approach that encourages students to take responsibility for their learning, especially in fields like social studies that focus on current social issues and civic engagements (Barron & Darling-Hammond, 2008; Harshman & Stanyon, 2021). As a result of the growing educational needs, the educational framework that fosters an active, learner-centred approach has gained greater emphasis (Saavedra & Opfer, 2012; Bell, 2010). The need for the 21st century requires learners to cultivate a variety of skills that are farsighted, not just knowledge bases, including decision-making, critical thinking, creativity, and digital competency (Trilling & Fadel, 2009; Voogt & Roblin, 2012). Regardless of the growing prominence of 21st-century competencies within the ambit of global educational frameworks, which encompass analytical thinking, problem solving, original innovation, and impactful communication, their integration of these pedagogical skills into the classroom remains challenging and continues to be marked by complexity, as there is a gap between plans and reality.

IBL is closely associated with the goal of 21st-century education by motivating students to work collaboratively, think critically and creatively and build knowledge through real-world instruction (Chu et al., 2017; Harada & Yoshina, 2010). Despite the pedagogical advantages and benefits of inquiry-based learning in social studies, educators face multifaceted obstacles that hinder its implementation. A primary



challenge is the perception of various stakeholders, including teachers, school leaders, and policymakers, who may not understand and be ready to adopt this approach, and their perceptions make it difficult to implement IBL successfully (Zion & Mendelovici 2012; Crawford 2007). In various settings, teachers often express insufficient training and lack of confidence in conducting open-ended investigations, especially in the field of social studies, where controversial and sensitive topics may arise (Levstik & Barton, 2011; Meuwissen, 2017). Despite these challenges, research shows that inquiry-driven environments can improve important skills like critical thinking, communication, and creativity, which are useful in many different teaching situations and subjects (Kuhlthau, Maniotes, & Caspari, 2015).

Meanwhile, most of the studies are conducted to investigate IBL in the STEM disciplines, i.e., science, technology, engineering, and mathematics, but the role of IBL in enhancing critical understanding, and civic engagement, responsibility, problem solving, creativity, and collaboration, especially in the social studies discipline, has not received as much consideration (Chu et al., 2017; Greenstein, 2012; Kamarainen et al., 2013). Considering this scenario, it assumes greater importance to systematically review the previous studies on IBL and its impact on promoting 21st-century skills, especially in social studies classrooms. The present study aims to fulfil the gap by analysing how IBL supports enhancing 21st-century skills in social studies classrooms across the varied educational settings.

## **2. Objectives Of the Study:**

1. To explore how different approaches of IBL support the development of 21st-century skills among secondary schools' students in social studies classrooms.

## **3. Methodology:**

Randolph (2009) emphasises that a literature review encompasses more than just recapitulating prior investigations; it evaluates and synthesises recent studies thoroughly, pinpoints shortcomings, and suggests avenues for further investigation. Using this method, a structured review of the literature was carried out by conducting a systematic review using (PRISMA) framework. This systematic review examines and analyzes relevant research studies to shed light on specific research question. In pursuit of the goal of the paper, which is to analyse the current research on inquiry-based learning fostering 21st-century skills among social studies classrooms, the following questions are answered:

- 1 How do various approaches and methods of inquiry-based learning (IBL) enhance 21st-century skills among social studies classrooms?



During the process of systematic review, we searched different database sites like, Google Scholar, ScienceDirect, EBSCO, ProQuest, and other databases. The systematic review consists of several phases, including the identification phase, screening phase, eligibility phase and inclusion determination.

### 3.1. Identification phase:

For systematic review, four major electronic databases, e.g., Google Scholar, ScienceDirect, EBSCO, and ProQuest, were systematically searched with five related keywords applied to retrieve research studies aligning with research objectives.

**Table 1:** Search Database & Key Words

Sl. No	Database	Key words
1	Pro Quest	<ul style="list-style-type: none"> <li>➤ Inquiry-Based Learning</li> <li>➤ Problem-Based Learning</li> <li>➤ 21st Century Skills</li> <li>➤ Social Studies Education</li> <li>➤ Social Science Education</li> </ul>
2	Science Direct	<ul style="list-style-type: none"> <li>➤ Inquiry-Based Learning</li> <li>➤ Problem-Based Learning</li> <li>➤ 21st Century Skills</li> <li>➤ Social Studies Education</li> <li>➤ Social Science Education</li> </ul>
3	Google scholar	<ul style="list-style-type: none"> <li>➤ Inquiry-Based Learning</li> <li>➤ Problem-Based Learning</li> <li>➤ 21st Century Skills</li> <li>➤ Social Studies Education</li> <li>➤ Social Science Education</li> </ul>
4	EBSCO	<ul style="list-style-type: none"> <li>➤ Inquiry-Based Learning</li> <li>➤ Problem-Based Learning</li> <li>➤ 21st Century Skills</li> <li>➤ Social Studies Education</li> <li>➤ Social Science Education</li> </ul>



### 3.2. *Screening phase:*

The screening process typically involves determining inclusion and exclusion criteria to identify relevant studies based on research titles and abstracts retrieved from five electronic databases: Google Scholar, ScienceDirect, EBSCO, and ProQuest. Each study title was assessed to determine whether it met the inclusion criteria or relevance to the keywords and objectives. Finally, the abstracts of relevant studies were systematically analysed to evaluate the studies related to the inclusion criteria.

### 3.3. *Inclusion and exclusion criteria:*

Consequently, after collecting research papers from the online electronic database, filtering was done according to predetermined inclusion or exclusion criteria, and only those studies were included that fulfilled the given criteria.

#### *Inclusion criteria:*

Focuses on Inquiry-Based Learning (IBL) in social studies

Addresses 21st-century skills (critical thinking, creativity, collaboration, communication).

Includes secondary-level students (grades 9–12).

Based on empirical research

Published in peer-reviewed journals, theses, and conference papers.

A full-text PDF is available online.

Published between 2014 and 2025

Published in the English language

#### *Exclusion criteria:*

Does not focus on IBL, social studies, or 21st-century skills

Ignores or does not assess 21st-century skills

Involves primary, higher, or teacher education levels



Includes non-empirical works (blogs, books, editorials, opinion pieces).Published in non-peer-reviewed sources

Full text is not available.

Published before 2015

Published in languages other than English

#### *3.4. Included Phase:*

During the years of 2014 to 2025, A total of 142 research articles were initially identified from four electronic database e.g., Google scholar (57), ProQuest (17), Science Direct (77), and EBSCO (28). The initial step was to remove duplicate entries, resulting in 136 distinct studies being included initially.

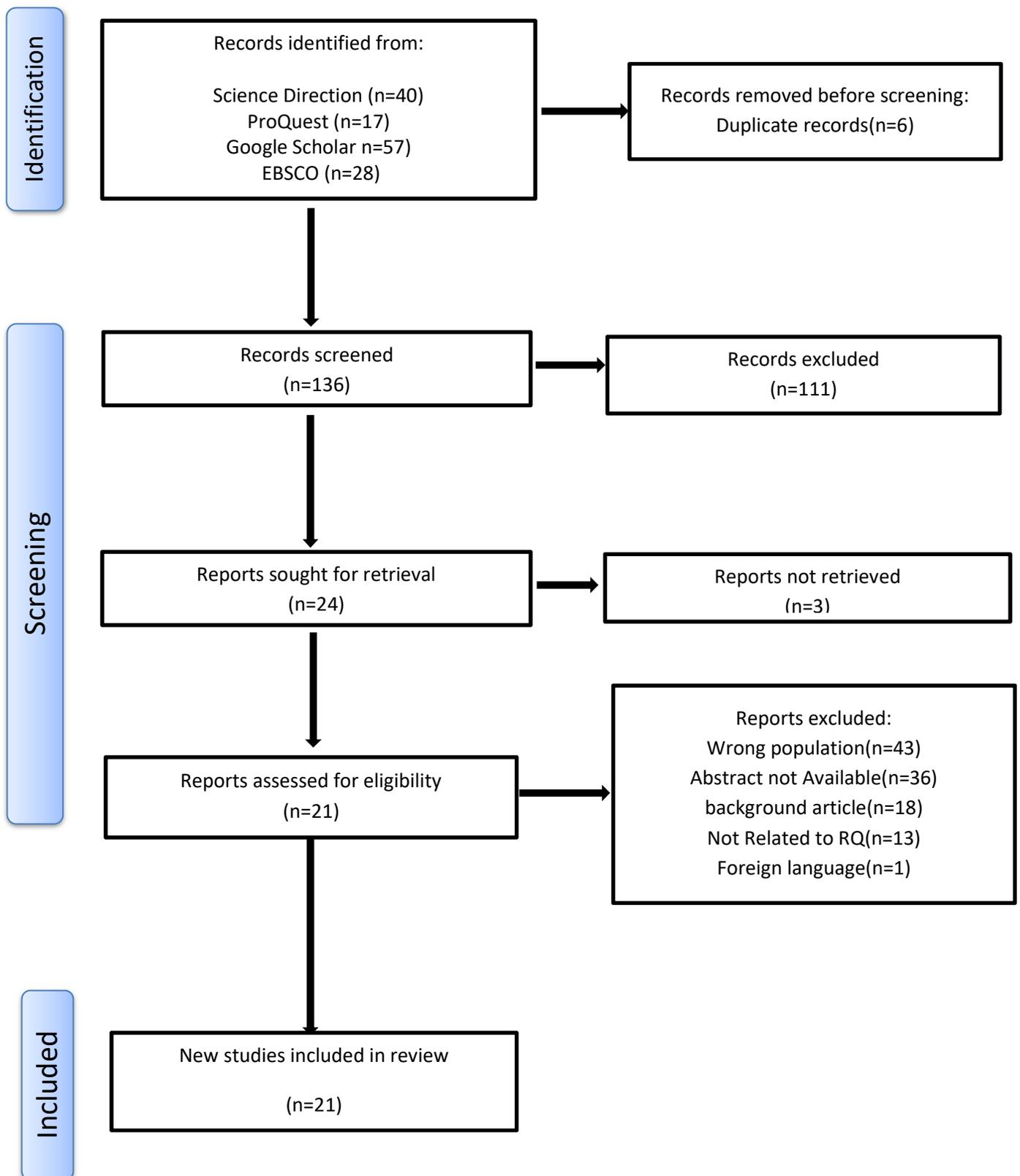
After the initial identification phase, the initial screening phase was conducted based on title and abstract, which led to the exclusion of 111 studies because those articles did not meet the inclusion criteria. Furthermore, three studies were also excluded due to unavailability of full texts.

In addition to this, screening was performed on the remaining articles using inclusion and exclusion criteria. The following reasons were found for exclusion of studies.

- \* 18 Articles focused on background information only.
- \* 43 Studies was the wrong population.
- \* 36 studies did not have full abstract available.
- \* 1 was in foreign language.
- \* 13 studies did not address the research questions.

As a result of this selection process, a total of 21 research Studies were finalized for systematic review. A visual representation of the process can be seen in the PRISMA diagram below.

## Identification of new studies via database and registers



**Figure 1:** Flow Chart of the systematic Review process based on PRISMA diagram (source: Authors)

#### 4. Analysis of findings:

Table 2 offers a comprehensive overview of the included studies features i.e. name of authors, affiliation, research methods, research participants, and citation.

**Table 2:** Outline of Research studies

S.No	Author	Affiliations	Research Method	Research Participants	citation
1	(Cheng et al., 2025)	Monash University, Melbourne, Australia	Quantitative method	59 graduate students & 66 secondary School students	3
2	(Lu et al., 2024)	Purdue University, West Lafayette, USA	Quantitative Method	183 Teachers	6
3	(Nurdauletova et al., 2024)	Yessenov University of the Republic of Kazakhstan	Quantitative method	61 students	6
4	(Ramos, R. S., & Sunga, S. F. 2024)	President Ramon Magsaysay State University, Iba, Zambales, Philippines	Quantitative research methods, Quasi-Experimental Research Design	Grade 10 Junior High School Students, Social Studies Teachers, From six (6) Junior High Schools	0
5	(Victa et al., 2024)	San Juan Integrated School, Philippines	Qualitative method	Five social studies teacher	0



6	(Fufa & Tulu, 2023)	Jimma University, Ethiopia	Qualitative Method	Six social studies teacher& two curriculum experts	6
7	(Hagglund,2022)	School of Education, California State University, San Marcos, USA	Mixed Method	40 Eighth Grade Students	1
8	(Chimbi & Jita 2021)	University of the Free State, South Africa	Qualitative method	Four History Teachers	9
9	(Yang, 2021)	National Institute of Education, Nanyang Technological University, Singapore.	Qualitative Method	17 Teachers	8
10	(Chen & Chuang, 2020)	Graduate institute of digital learning and education, National Taiwan University of Science and Technology, Taiwan	Mixed method	46 students	103
11	(Elliott, 2020)	Walden University,USA	Qualitative Method	Four teachers	3
12	(Casey et al.,2019)	Louisiana state University, USA	Qualitative method	11childrens	39
13	(Al-Jeddani, 2018)	University of Exeter, UK	Qualitative method	25 teacher,142 Students	0



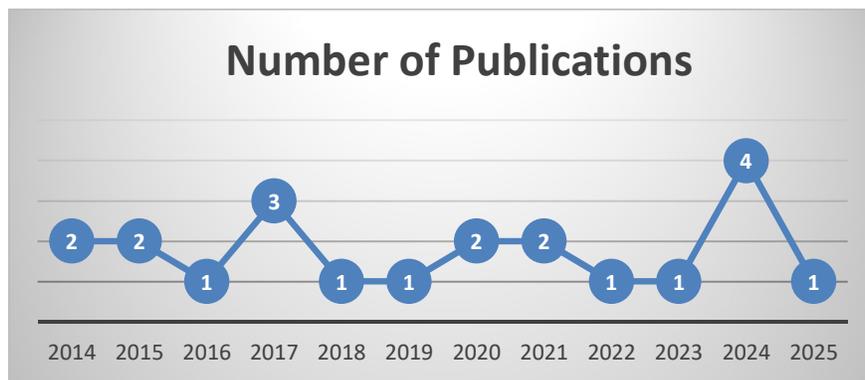
14	(Howell&Saye, 2017)	Department of Curriculum, Instruction & Special Education, The University of Southern Mississippi, USA	Qualitative method	3 Teachers	28
15	(Schneider,2017)	Pepperdine University,USA	Mixed method	One high school teacher &56 students	1
16	(Voet& Wever,2017)	Ghent University,Belgium	Quantitative method	302 student's teacher	33
17	(Hui, 2016)	University of Phoenix,USA	Qualitative method	10 Native Hawaiians high school graduates	9
18	(Crocco&Marino, 2015)	Michigan State University, USA	Qualitative Method	27 Students	56
19	(Dicamillo, 2015)	Canisius college, USA	Qualitative Method	Six weeks of observation of One social Studies teachers	11
20	(Brkich, 2014)	Georgia Southern University, USA	Qualitative method	3 Teachers	10



21	(Poitras& Lajoie,2014)	Mc Gill University, Canada	Mixed method	22 students	35
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*Year- wise publications trend:*

Figure 1 displays a comprehensive overview of the number of publications for each year from 2014 to 2025. As per the table, the number of publications has fluctuated over the years. The early years, particularly from 2014 to 2017, show a growing interest in this topic with each passing year. Research interest in this area began steadily in 2017 and peaked with three publications. This growing phase indicates that researchers increasingly acknowledged the potential of inquiry-based learning to develop 21<sup>st</sup> -century skills. But from 2018 To 2023, The number of publications remained relatively stable, ranging from 1 to 2 each year, indicating a steady and ongoing academic engagement with inquiry-based learning (IBL) across different educational contexts. However, a significant spike was observed in the year 2024, with 4 publications, the highest in the entire period.

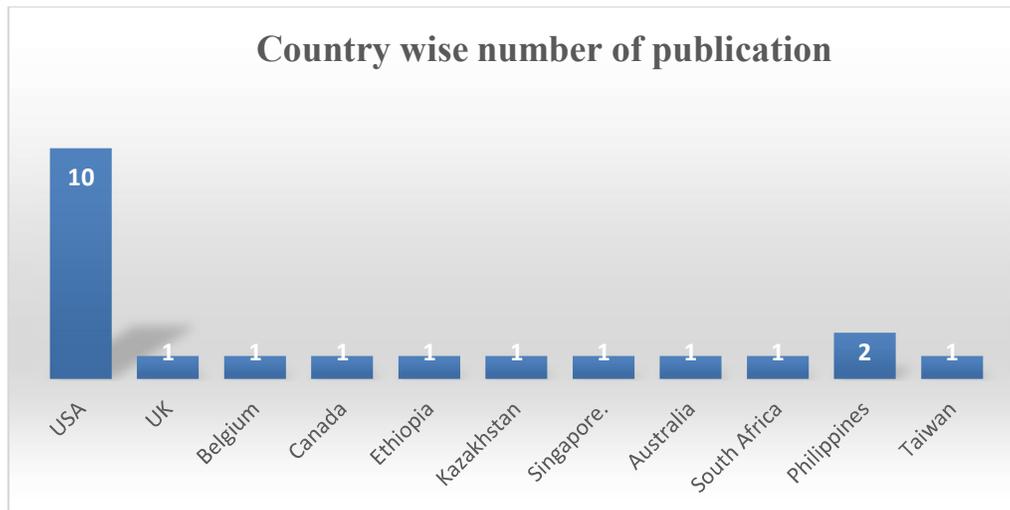


**Figure 2:** Distribution of years of selected studies

*Country-wise Publication trend*

The figure represents a snapshot of county-wise publications on fostering 21st-century skills through inquiry-based learning in social studies classrooms. The data shows country-specific publications of 11 countries in total. The USA has highest number of publications, with 10 entries, indicating majority of research in this area has been conducted there. The remaining countries have a relatively low number of

publications, with most having only 1 publication, including the UK, Belgium, Canada, Ethiopia, South Africa, and Australia. Singapore, Kazakhstan and Taiwan. This suggests that while there is growing interest in IBL globally, the majority of research efforts are limited to a few countries. But the Philippines is the only other country besides the USA with more than one publication, having 2. The overall distribution suggests a skewed representation, with the USA dominating the landscape.



**Figure 3:** Country-based research output from 2014 to 2025

#### *Methodological approaches of included studies:*

The chart represents the 21 reviewed articles based on the research method used on inquiry-based learning in social studies. It shows that majorities of the studies 12 articles adopted a qualitative approach, followed by 5 articles using a quantitative method and 4 articles using a mixed-method design. This clearly indicates that qualitative research dominates this field, as the researcher prefers exploring the in-depth process involved in inquiry-based learning. But the quantitative studies, which account for 5 articles, are relatively less prevalent, possibly due to the challenge of measuring abstract skills. However, these studies demonstrate an ongoing effort to assess IBL impact. Meanwhile, mixed methods appearing in 4 articles combined the strengths of both qualitative and quantitative approaches, and the results provided a more holistic understanding. Overall, the convergence of diverse methodologies offers an informative overview of inquiry-based learning and its potential to foster 21st-century skills in educational practices that empower learners to thrive.



**Figure 4:** Research method of selected studies:

Table 3: Average citations per article by country

SL No	Country name	No of publication	Citations	Average Citation per Article
1	USA	10	164	82
2	UK	1	0	0
3	Belgium	1	33	16.5
4	Canada	1	35	17.5
5	Ethiopia	1	6	3
6	Kazakhstan	1	6	3
7	Singapore.	1	8	4
8	Australia	1	3	1.5
9	South Africa	1	9	4.5
10	Philippines	2	0	0
11	Taiwan	1	103	51.5

Brkich and Andrew (2014) conducted a study on a high school world history teachers’ experience: learning to use authentic intellectual work in schools of colour. This study foregrounds how teachers integrate authentic intellectual work—an IBL approach—in racially diverse schools to encourage deeper thinking, addressing the development of critical thinking. The study revealed that teachers in racially



diverse schools use authentic intellectual work ,describing their experiencing through lenses of hermeneutics and phenomenology and for further research in this regard .

Lu et al. (2024) has conducted a study which is entitled 'Exploring teachers' inclinations towards adapting inquiry-based learning in social studies: insight from teachers' professional identity'. This study reveals a confidential link between teachers' constructivist beliefs and their adoption of IBL, which facilitates a variety of approaches to addressing application challenges. It relates teacher identity with their willingness to foster 21st-century skills like inquiry and critical thinking.

DiCamillo & Lorrie (2015). Study explored expedition learning in a global history class, finding it helped students examine not only global issues but also posed challenges for interdisciplinary understanding and critical thinking, problem solving particularly with diverse socioeconomically student backgrounds.

Crocco et.al (2017) was conducted to study on promoting inquiry-oriented teacher preparation in social studies through the use of local history. The study shows that both the constructivist and inquiry-orientated approaches to history teaching were brought up by the educational reform movement. Using local history can serve as an effective tool to foster engagement and more profound learning in inquiry-based learning.

Howell et.al. (2018) has conducted a study on integrating theory and practice: factors shaping elementary teachers' interpretation of an inquiry model for teaching social studies. It is revealed that lesson study helps elementary teachers to develop expertise in problem-based historical inquiry. Three key factors influence how teachers adapt this approach: first, their reliance on established authorities; second, their approach to balancing foundational knowledge; and lastly, their own unique perspective on teaching and learning.

Casey et.al. (2019) has conducted a study on “Growing democratic citizenship competencies: Fostering social studies understandings through inquiry learning in the preschool garden .helping children develop democratic skills .it is found that schools garden effective for inquiry -based learning . This research demonstrates preschool environments foster democratic skills like collaboration and problem-solving, linking inquiry-based learning to early 21st-century skill development.

Elliott et.al. (2020) entitled "Experiences of Teachers of the Deaf Using Project-Based Learning to Build Higher Order Thinking Skills". The study has revealed that project-based learning is a valuable approach



for developing higher-order skills, which are essential for the 21st century. This study employs project-based learning with deaf students to build higher-order thinking and critical reasoning.

Al-jeddani et.al (2018) on his study “Incorporating Sustainable Development in Social Studies and Citizenship Education Curriculum: The study considers how a problem-centred IBL approach helps integrate sustainable development into social studies. Irrespective of the little amount of teacher knowledge, strong attitudes toward IBL point out both potential and challenges in application.

A study conducted by Schneider et.al. (2017) on “Virtual Civic Engagement: Exploring Technology, Secondary Social Studies, and Problem-Based Learning with TPACK” found that cognitive scaffolding could be of two types. The study highlight the importance of cognitive scaffolding (hard and soft ) support high school social studies students in effective IBL.

Hui et.al. (2016) has conducted a study on “Motivating native Hawaiians by project-based learning: A narrative inquiry”; the study showed that native Hawaiians face more challenges than their non-Hawaiian peers. As project-based learning integrates learning and psychological theories boosted students interest , and positive attitude , it also improve communication and self directed learning skills , strong teacher - students bond is key to successful PBL.

Voet. et.al (2018) has conducted a study on “Effects of immersion in inquiry-based learning on student teachers’ educational beliefs.” IBL can positively shape teachers' beliefs, but its effectiveness varies, with stronger impact on teachers with strong content-focused beliefs. .This study further revealed that IBL has a very slim effect on the students-teacher having a large contented belief.

Poitras et.al. (2014) in their study called “Developing an agent-based adaptive system for scaffolding self-regulated inquiry learning in history education”. It is found that the Meta-Histo Reasoning supports inquiry-based learning in history. It helps students develop critical reasoning and historical thinking ,which are essential in 21<sup>st</sup> century skills .

Nurdauletova et.al. (2024) found in their study named “A Study on Historical Preservation in Kazakhstan”. From the study it is revealed that in the experimental study students in the experimental group showed significantly better performance than that of the control group. Findings also revealed that the project-based learning approach about the history of toponyms and etymological analyses of Mangistau boosted students’ interest, appreciation and attitudes towards historical and cultural heritage.



Fufa et.al. (2023) revealed that “Examining the challenges of using student-centred teaching strategies in secondary schools: A qualitative approach: results of the study show that implementation of student-centred teaching techniques is not appropriate in history classrooms. Student -centered teaching in history is hindered by overcrowding rigid seating ,limited resources ,time and perspective .

Chimbi and Jita (2021) in their study “Policy Failures with Learner-Centred Pedagogy: Case Studies from the Zimbabwean Experiment on Project-Based Learning” found that project-based learning has been recognised as an indispensable approach in developing learners' 21st-century skills of creativity, critical thinking, research, problem-solving, ,but policy implementation faces challenges .

Victa. et.al. (2024), in his study named Lived Experiences of Social Studies, Teachers in Teaching Global Citizenship Education in Junior High School: A Phenomenological Approach got that global citizenship education helps to foster respect and responsible global citizens exhibiting tolerance and belonging to the global community. The study highlighted the need for teacher professional development, training, contextualised materials, and collaboration to enhance GCE instruction with promoting peace, equality and critical thinking.

Chennai, Chuang (2020) in their studies on the “Effects of digital storytelling games on high school students' critical thinking skills” It is found that digital storytelling is an emerging technology enhancing students' ability in critical thinking, collaboration and teamwork. An effective strategy can promote deep learning and foster 21st-century skills. Participants also revealed that critical thinking helps students make fair judgement on complex issues.

Ramos and Sunga (2024), entitled 'Effectiveness of Inquiry -Based Learning in Enhancing Critical Thinking Skills Among Grade 10 Junior High School Students'. It found that Inquiry-based learning encourages students to independently explore questions and problems instead of passively listening to lectures. The study found that teachers play a key role in creating a supportive environment for this method by monitoring student progress, giving feedback, and using positive reinforcement.

Cheng et al. (2024) have conducted a study on “Self-regulated Learning Processes in Secondary Education: A Network Analysis of Trace-based Measures”. It found that secondary school students use three SLR processes, orientation, reading, and elaboration/organisation. Low-performing students focus more on orientation, high performer on rereading while advanced students focus on monitoring ,evaluation .and strategic use of rubrics .



Hagglund (2022) enquired on the topic “The Inquiry-Based Approach in Social Studies Classrooms and How They Support Student Engagement, Buy-In and Performance”. The study revealed that students preferred inquiry-based learning, also showed mastery of content and slightly better performance in learning.

Yang (2016), in his study “Interpreting inquiry learning in social studies: Singapore secondary school teachers’ understandings of ‘Issue Investigation’—a preliminary study”, concluded that inquiry-based study is widely used in science, only neglecting the social science discipline.

## **Discussion of Results**

### *5.1. Fostering 21st century competency via Inquiry based learning*

A growing body of academic research indicated that inquiry-based learning substantially enhanced 21st-century competencies such as critical thinking skills, problem-solving, creativity, collaboration, and communication, particularly in social studies classrooms. For instance, Ramos and Sunga (2024) conducted quasi-experimental research and found that IBL strengthens critical thinking by stimulating students to self-directed problem-solving. Similarly, Hagglund (2024) observed that students in inquiry-based classroom contexts illustrate more active engagement, advanced comprehension and enhanced academic achievements. These findings are highly congruent with the core objective of IBL – to develop analytical reasoning, initiative-taking, self-reliance, decision-making and evidence-based thinking skills that are key to 21st-century skills.

Apart from this, in the global context, adoption of inquiry-based approaches has yielded consistent findings. In the Philippines, IBL approaches have been found to enhance civics literacy and active civics engagement among middle school students (Ramos & Sunga, 2024). In the U.S., DiCamillo (2015) found that expedition learning (a form of IBL) helps students inspect global issues such as security and privacy. It also raises concerns regarding the achievement of interdisciplinary understanding. In Saudi Arabia, Al-Jeddani and Martin (2018) emphasize that the IBL approach helps integrate sustainable development into social studies. Despite limited teacher knowledge, strong attitudes toward IBL highlight both the potential and the challenges in application. These examples demonstrate how inquiry-based learning, when implemented across diverse educational regions, strengthens students' deeper conceptual understanding and enhanced real-world problem-solving abilities.

### *5.2. Inquiry-based learning Approaches for Developing 21<sup>st</sup> century skills*



Various instructional strategies for inquiry-based learning have shown a significant enhancement of 21st-century skills in social studies classrooms. The key competencies include digital literacy, self-management, adaptability, problem-solving, communication, creativity, and critical thinking. For instance, in 2020, Chen and Chuang used a gamified digital storytelling approach and found that game-based instructional approaches have enhanced students' 21st-century skills such as problem-solving, critical thinking, and communication skills through collaborative design. Similarly, in 2017, Schneider and Polin used the TPACK framework by integrating oral history projects as learning tools, and they found that technological scaffolding fostered research skills and digital competency among secondary students.

In addition to the digital approaches, other strategies such as local history inquiry (Crocco & Marino, 2017), project-based learning (Hugglund, 2021), and problem-based historical inquiry (Howell & Saye, 2018) have been found to significantly enhance 21st-century skills such as analytical reasoning, collaboration, and civic engagement among secondary-level students, particularly in social studies classrooms. These approaches motivate students to pose questions, analyse sources, construct knowledge and showcase their work innovatively. All these findings indicate various approaches to inquiry-based learning fostering 21st-century skills which are aligned with 21st-century learning goals.

### *5.3. Teachers and students' perspectives on Inquiry based learning*

The existing body of knowledge showed that both students and teachers uphold a positive attitude toward IBL once they are comfortable with its practices. Lu et al. (2024) spotlighted that teachers' constructivist beliefs are significantly associated with adopting IBL. It refers to the belief in fostering 21st-century skills like inquiry and critical thinking. Similarly, Voet et al. (2018) revealed that immersive IBL positively affects teachers' beliefs about procedural knowledge and inquiry and also observed that students and teachers showed increased mastery for practical knowledge after experiencing inquiry-based learning. These findings highlight that professional expertise and previous experience play a significant role in adopting an inquiry-based learning approach in classroom settings.

However, obstacles to inquiry-based learning exist within these frameworks due to the fear of change, lack of teacher training, and traditional teaching habits. Howell and Sayad (2018) highlighted that in high-poverty U.S. schools, teachers were unwilling to implement inquiry-based learning in the classroom settings due to the anxiety about assessment outcomes and concerns about academic achievements. Some studies indicate that inquiry-based pedagogy is used merely as a curricular



requirement and obligation. These conflicting perceptions highlight the value of rigorous training programs and cultural fits when implementing inquiry-based learning.

#### *5.4. Challenges in Adopting Inquiry based Approaches*

Teachers face multiple difficulties when integrating inquiry-based pedagogy in classroom settings, particularly in resource-constrained educational systems. Fufa et al. (2023) and Crocco & Marino (2017) found that a major challenge is the inadequate professional development and time constraints, such as limited teaching hours and insufficient materials, in implementing inquiry-based pedagogy. Apart from this, other barriers may include large class size, absence of assessment tools, and over-emphasis on textbook-centred curricula.

In countries like Zimbabwe, Chimbi and Jita (2021) showcased the failures of project-based learning (a form of IBL) and stated that it was poorly executed policy due to the limited administrative support and a lack of feasibility analysis. Similarly, in Ethiopia, Fufa et al. (2023) finds vital classroom-level barriers—like overcrowding and teacher attitudes—that hamper integrating inquiry-based pedagogy in the classroom context. These institutional issues and organisational barriers should hamper the advantages of inquiry-based learning and increase demand for comprehensive educational reform to enable its integration.

#### *5.5. Educational Reforms and Policy implications*

The review reveals an immediate need to adopt transformative policies and competency-based teaching frameworks that support inquiry-based pedagogy in social studies classrooms. Integration of IBL in social studies should begin at the teacher preparation level, where teachers develop their professional expertise and are well-trained in developing and enabling inquiry-based lessons in social studies (Crocco & Marino, 2017; Howell & Saye, 2018). Adaptable curriculum should be given priority by the policymakers that allow in-depth inquiry of issues and challenges rather than surface-level learning. For instance, Chen and Chuang (2020) recommended integrating digital storytelling as a method of IBL, as a tool for deep learning and developing 21st-century competencies among secondary school students.

Overall, adopting IBL at ground level requires a strategic assessment plan, development of teachers' professional expertise and sufficient resource allocation for educational institutions to enable effective execution of IBL in social studies classrooms.



## 5. Educational Implication

### 6.1. *Prioritizing Inquiry based pedagogy in teacher training*

A significant hindrance to IBL implementation is the absence of pedagogical competencies among teachers. It is essential to develop inquiry-oriented teaching competencies in the early stages pre service and in-service teacher training. As the absence of these practices should create obstacles to effective IBL implementation in classrooms.

### 6.2. *Integrating inquiry into flexible curriculum*

The opportunity for inquiry is limited in the classroom when the educational context follows the traditional and textbook-driven curricula. There is a need to make the curriculum reforms more flexible and adaptable; as a result of this, students become more curious to pose questions and investigate to find answers.

### 6.3. *Aligning assessments with IBL principles*

Traditional assessment commonly ignores the students' skills, such as critical thinking, problem-solving, collaboration and communication skills. The success of IBL depends on strategic assessment; it is necessary to redesign the assessment frameworks to assess the process-driven learning and 21st-century competencies.

### 6.4. *policy and institutional support for inquiry-based learning*

Effective execution of inquiry-based learning involves structural and organisational support. Without institutional support, inquiry-based learning is unfeasible. Mainstreaming inquiry-based practice requires policy reforms, proper guidance, sufficient resource allocation and effective monitoring mechanisms.

## 6. Conclusion

The review makes clear that inquiry-based learning has a profound effect on 21st-century skills such as critical thinking, creativity, communication, decision-making, problem-solving and civic engagement in social studies classrooms. Both students and teachers generally show a positive outlook towards inquiry-based learning, while some challenges exist within its framework, such as incompetent training, outdated curricula, limited resources, and institutional barriers obstructing its effective execution. These findings draw attention to the need for strategic reforms, teacher preparation, personalised learning and



an adaptable curriculum. Further study should be recommended to look into contextual strategies, sustained outcomes of IBL, and measurable models for integrating inquiry-based pedagogy across different learning environments. Furthermore, the National Education Policy (NEP) 2020 also stresses inquiry-based and competency-driven pedagogy in the teaching-learning process, emphasising the importance of inquiry-based approaches in transforming social studies education in India.

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