



PERCEIVED BARRIERS IN PROMOTING CRITICAL THINKING: VOICES OF SOCIAL SCIENCE TEACHERS IN WEST BENGAL

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RESEARCH ARTICLE



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Abstract

Critical thinking is an essential 21st-century skill and component of effective learning, yet several constraints may affect its promotion in classrooms. Although researchers have identified various barriers to promoting critical thinking, empirical evidence from elementary-level social science classrooms in West Bengal remains limited. Therefore, this study aimed to explore the challenges social science teachers perceive in promoting critical thinking in elementary-level classrooms affiliated with the West Bengal Board of Secondary Education. The present study employed a descriptive research design and a qualitative approach. Data were collected through a self-constructed semi-structured interview schedule with 58 social science teachers across five districts in West Bengal. Data were analysed thematically using NVivo software. Findings revealed multiple and interconnected barriers related to students, teachers, home environment, curriculum structure, teaching materials and resources, classroom environment, pedagogical barriers, institutional barriers, limited assessment scope, and limited career opportunities and uncertainty. These findings highlight the importance of teachers not only in promoting critical thinking but also in supporting the classroom, school and home environment. This study contributes context-specific evidence on the challenges influencing the effective promotion of critical thinking in elementary-level social science classrooms in West Bengal.

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Introduction

Critical thinking is an important skill to incorporate into educational aims to achieve success in life (Luk & Lin, 2015). Critical thinking is becoming a higher priority in this rapidly evolving society, as people seek jobs, build a good career, and, overall, live a sound life by navigating daily challenges (Mok & Yuen, 2016). Rapid advances in technology and the explosion of information make it hard to process and manage effectively, creating an urgent need to change how we live and making it necessary to analyse and evaluate information (Allamnahrah, 2013). Thus, critical thinking is an expectation of modern society and must be developed among students (Valtonen et al., 2021).

Critical thinking is a skill that enables students not only to acquire the right knowledge but also to make informed decisions (Suratmi & Sopandi, 2022). Ennis (1993) defined critical thinking as the ability to reasonably decide what to do and what to believe through reflection on one's own thoughts. While Facione (1990) conceptualised it as a set of different sub-skills, including analysis, interpretation, explanation, evaluation, inference, and self-regulation, which work purposefully and in a self-regulatory manner. In the words of Halpern (1998), critical thinking is the use of cognitive skills to achieve a desirable outcome by involving problem-solving, formulating inferences and making decisions. Thus, these definitions present critical thinking not merely as acquiring knowledge, but also as verifying the credibility of sources, analysing situations, examining evidence, and making informed decisions.

Given the emphasis on critical thinking in learning, educators must provide a conducive classroom environment where students can actively question, analyse arguments, express diverse perspectives, and make reasoned judgments. Thus, teachers play a vital role and must use teaching and pedagogical practices that support students' competence (Voogt et al., 2013; Valtonen et al., 2021). Therefore, teachers are not only expected to understand critical thinking but also to encourage students to ask questions, share ideas, and make sound decisions (Zainudin et al., 2019). This becomes particularly important at the elementary level, where students must be introduced to and practise critical thinking skills (Gelerstein et al., 2016).

Although teachers' understanding and practise of critical thinking matter, research suggests they often lack sufficient conceptual awareness and pedagogical knowledge (Zhang et al., 2020). However, teachers find it difficult to develop critical thinking skills without adequate experience (Öz & Balyer, 2018). Álvarez-Huerta et al. (2023) reported that teachers possessed insufficient knowledge of critical thinking skills in the higher education context. Similarly, Shahid (2023) indicated that despite understanding critical thinking, teachers often remain under pressure to focus on good marks to fulfil parents' demands, overshadowing the promotion of critical thinking. Therefore, it is important to explore the challenges teachers perceive to understand the factors that may hinder the development of critical thinking. Therefore, the present study explores the barriers perceived by elementary-level social science teachers affiliated with the West Bengal Board of Secondary Education (WBSSE) in West Bengal.

Literature Review

It is a prerequisite for teachers to have sufficient knowledge, pedagogical skills, and attitudes to create an open-minded classroom where students have opportunities for higher-order thinking for the effective development of critical thinking. However, previous studies found that although teachers were aware of the importance and necessity of critical thinking, they lacked the knowledge to define it, resulting in an emphasis only on content development as an outcome rather than cognitive processes (Ali et al., 2021; Ouslimani et al., 2021; Yazdankhah et al., 2021). Several studies identified inadequate professional training to incorporate critical thinking into classroom practice as a major challenge (Marin & de la Pava, 2017; Abdulazeez & Ali, 2021).

However, the problem is not confined to teachers' lack of knowledge due to limited professional development. The literature also shows that students' intellectual, psychological and social barriers hinder the development of critical thinking skills. For example, Zhang et al. (2020) reported that university EFL teachers perceived low intelligence, a lack of independent thinking, and inadequate language proficiency in their students. Mufidati et al. (2024) and Saleh (2019) also reported that students' low attention span and lack of interest hamper higher cognitive processes. Similarly, studies found that inactive and passive participation of students in the class due to low motivation and fear of mistakes and rejection did not support critical thinking (Alasmari, 2022; Kerdsomboon & Boonsathirakul, 202; Zainudin et al., 2019).

Additionally, the curriculum and assessment process play a major role in facilitating or constraining critical thinking. When classroom teaching and learning focus heavily on expanding knowledge, rely on textbooks, and depend on traditional examinations, teachers may have limited opportunities to promote critical thinking. In this context, Tan (2020) identified that a textbook-oriented teaching process and a traditional assessment system focusing on achieving good marks hinder the promotion of critical thinking. Jamil et al. (2021) also reported in their observational data that secondary school science teachers emphasised the lecture method more in the classroom and found a gap between policy demands and actual classroom practices.

Furthermore, the classroom conditions can have both positive and negative impacts on teachers' ability to engage students in critical thinking activities. A conducive classroom often needs sufficient time for discussion, questioning, and interaction. However, teachers often work under pressure to complete the syllabus within a limited time, with large classes, inadequate resources, and limited teaching materials. Davies and Willing (2023) stated that time constraints and a lack of teaching resources were barriers to promoting critical thinking. Similarly, Khalil and Hellalet (2024) identified overcrowded classrooms, lack of time, and an inappropriate curriculum as factors that demotivate Moroccan EFL teachers from implementing critical thinking effectively. Latorre-Coscolluela et al. (2021) found that despite recognising the importance of critical thinking, primary school teachers cannot promote it because of a lack of proper training and insufficient resources.

Barriers in promoting critical thinking may also extend beyond the classroom circumstances. Family background and socio-economic conditions can influence students' inclination to participate actively in class. Abdulazeez and Ali (2021) reported that teachers identified students' unsupportive home environment as a major reason for not developing critical thinking. Similarly, Essalih et al. (2023) reported that primary school science teachers identified family conditions and cultural influences as barriers. Moreover, teachers in a study also considered socio-economic conditions of students an important factor affecting the development of critical thinking (Zhang et al., 2020).

Research Gap

Despite several studies identifying barriers to promoting effective critical thinking in practical classrooms, research has largely focused on language, science, and higher education. Some studies have explored barriers among primary- or secondary-level teachers. However, limited attention has been paid to the perceived barriers faced by elementary-level social science teachers affiliated with the West Bengal Board of Secondary Education (WBBSE) in West Bengal, India. Moreover, the literature identifies barriers such as an inappropriate curriculum, assessment processes, lack of teacher training, and challenges on the students' side; however, these factors may vary by educational and socio-cultural context, and empirical evidence on how elementary-level social science teachers affiliated with the WBBSE in West Bengal perceive these challenges remains limited. Therefore, this study aims to explore the challenges that hinder the promotion of critical thinking in elementary-level social science classrooms affiliated with the WBBSE in West Bengal.

Research Objective

1. To study the challenges experienced by social science teachers in promoting critical thinking in elementary-level classrooms affiliated with the West Bengal Board of Secondary Education (WBBSE) in West Bengal.

Research Design

The present study employed a descriptive research design using a qualitative approach to explore the challenges faced by elementary-level social science teachers in promoting critical thinking skills in the classroom.

Population

The study population comprised all social science teachers teaching classes VI-VIII in the schools affiliated with the West Bengal Board of Secondary Education (WBBSE) in five selected districts in West Bengal.

Sample and Sampling Procedure

The present study included 58 elementary-level social science teachers teaching in classes VI-VIII in WBBSE-affiliated schools across five districts in West Bengal. The districts were selected randomly from each administrative division, followed by randomly selecting one block from each district. Schools were selected based on convenience and accessibility, while participants were selected purposively.

Tool Used

Data were collected using a self-constructed semi-structured interview schedule. The interview focused on teachers' experiences and perceptions of barriers to promoting critical thinking skills among students.

Data Analysis Technique

The obtained data were analysed using thematic analysis. The interview transcripts were familiarised to identify patterns in responses. Based on this, the study established relevant themes using NVivo software.

Analysis of the Data

In this phase, the study presents findings by identifying relevant themes related to teachers' challenges in implementing critical thinking. Three broad themes emerged: personal and interpersonal barriers, pedagogical and classroom barriers, and institutional, curriculum, and professional barriers.

Theme I: Personal and Interpersonal Barriers

This theme covers the barriers teachers face related to students, teachers, and students' home environments.

Student-related barriers: Teachers perceived several student-related problems that hinder the promotion of critical thinking. These challenges deal with many psychological constraints, including students' lack of motivation and interest in the class, shyness, low attention span, and early adolescence behavioural problems. Teachers also reported several educational problems, including weak primary education, tendencies toward passive learning, low academic expression, limited questioning and critical-thinking ability, and marks-oriented attitudes. One teacher stated the inability to answer complex questions:

"Because if we ask students simply, they can answer. But when we ask that same question, making it a little complex, they can't answer, even when they know the answer".

Another teacher highlighted the importance of foundational learning in critical thinking:

"No primary education, admission should be according to age, like age 6+ for 1, they are very afraid, they are less confident. They don't want to learn., so until and unless the base is not strong, the primary education system is not strong, at the upper level, the base remains weak".

One more teacher revealed the students' classroom participation and behaviours:

"Only the teacher gives lectures, students remain passive, they do not want to respond, because they hesitate and are shy, they do not see properly, some students disturb the class".

Teacher-related barriers: Teachers also perceive several challenges related to their own professional and classroom practises. Teachers identified teacher shortages, administrative workload, lack of technical competence, family issues affecting critical thinking, difficulty in classroom management, and pressure to complete the syllabus on time as major problems. One teacher reported the lack of subject teachers:

"Students are very irregular, guardians are not, lack of subject teachers".

Another teacher, similarly, addressed the lack of knowledge of critical thinking:

"I don't know about the exact meaning of critical thinking, as I am not familiar with the term".

Home-related barriers: Furthermore, teachers highlighted influential factors in students' home environments that affect their learning and participation, including unfavourable conditions, poor economic conditions, greater emphasis on private tuition, a mark-oriented nature, and a lack of parental awareness and involvement in household chores, which play a substantial role in hindering the promotion of critical thinking. One teacher highlighted the lack of parental awareness:

"They are not serious about your studies. Their guardians are not serious either. This is the main problem. If parents are not conscious or serious, then what can we teachers do more?".

Another teacher pointed out the poor home environment:

"How many times have I told them to study, but they don't understand the importance of education because their home environment isn't good".

Furthermore, another teacher spoke about the poor economic condition:

"Many other problems exist, like their economic background; many students have to work during the day, so they are involved in household chores."

Theme II: Pedagogical and Classroom Barriers

This theme concerns several problems related to teaching materials, classroom conditions, and pedagogical practises.

Teaching material-related barriers: Teachers pointed out the unavailability of teaching materials and aids as a challenge in promoting critical thinking. Limited access to and use of teaching-learning materials and audio-visual aids, such as mobile phones, restricted the activities required for critical thinking. In this context, one teacher said:

"There is a lack of tools/modules like various TLM, Projectors in our classrooms".

Classroom environment-related barriers: Teachers identified challenges associated with the classroom environment, such as overcrowded classrooms and difficulty paying equal attention and maintaining student engagement, which hamper critical thinking practises. As one teacher explained regarding classroom size:

"Classroom size is a big issue in our school. Sometimes they are many students, so in that case, giving individual attention becomes very difficult".

Another teacher responded on time constraints:

"But although these are enhancing factor, unfortunately, these are the challenges because students are not regular, but when students are regular, then the classroom become overcrowded, we cannot manage each and every one, we cannot give everyone proper time because of the very limited time period".

Pedagogy-related barriers: Teachers also identified another pedagogy-related factor in the classrooms. In the current classroom, the traditional teaching-learning system dominates, providing limited opportunities to use innovative teaching methods and limiting opportunities for questioning and group discussion.

One teacher explained:

"There is no scope to teach students by using other methods because students cannot read or write properly".

Theme III: Institutional, Curriculum and Professional Barriers

This theme represents the different challenges teachers face related to institutions, curriculum, and the professional context in which they work.

Curriculum-related barriers: In this context, teachers identified several factors that hinder the promotion of critical thinking, including textbook and content limits; difficulty completing the syllabus within a limited time frame; and the curriculum's focus on rote learning. One teacher responded:

"No, no such activities or things in the textbook that can promote critical thinking through some activities. Though some activities are there students, do not practise them".

School-related barriers: Teachers also referred to some school-related problems that affect students' ability to promote critical thinking. Teachers mainly perceived a lack of physical infrastructure in the school, the absence of a pass-fail system and a punishment system, lack of teacher training, lack of ICT facilities in the school, poor classroom conditions and attendance driven by the mid-day meal scheme as creating a lack of scope for critical thinking. One teacher reported:

"There is no pass-fail system. If students get zero marks, even though we have to, we give them passing marks".

Another teacher said:

"Mostly, students come only to get the mid-day meal".

Assessment-related barriers: Assessment practises were also perceived as a major challenge in promoting critical thinking. Teachers indicated that pressure to provide passing marks, overcrowded classrooms in regular assessments, and increased emphasis on mark achievement constrain formative assessment and reduce the quality of the classroom environment for promoting critical thinking. One teacher pointed out:

"Yes, regular assessment is important, but that is not possible in our school because we have a very limited time period to complete the whole syllabus. So, in between, we cannot conduct any formative assessment".

Job-related barriers: Moreover, teachers pointed out professional and job-related pressure that may hinder the promotion of critical thinking. Teachers mainly revealed that limited job opportunities demotivate students from attending school and taking their education seriously.

As one teacher stated:

"So, students or parents are very demotivated. They thought education could not build a career, so they didn't show seriousness".

Discussion

The findings of the present study suggested substantial interconnected factors influencing the promotion of critical thinking in the elementary-level social science classroom. Participants identified challenges not only with students but also with themselves, the home environment, and the institution, including classroom conditions and the curriculum assessment process. Similarly, previous studies have identified these multidimensional barriers to promoting critical thinking, where students, teachers, curriculum, school, family, and sociocultural and socioeconomic factors have been perceived as constraints (Acharya, 2016; Abdulazeez & Ali, 2021; Essalih et al., 2023).

A major finding indicated that teachers perceived students' lack of interest, motivation, and intelligence; shyness in active learning; attentional and attitudinal problems; low critical thinking ability; and grade orientation as hindrances to promoting critical thinking. This finding suggests that a critical thinking-oriented classroom environment may be difficult to create without proper student interest, motivation, and attention. Students who feel shy and scared to answer questions, thereby reducing opportunities for teachers to engage them in active learning. Zainudin et al. (2019) supported these findings, reporting that low confidence and intelligence among students, along with fear of making mistakes, prevented them from answering questions. Similarly, Kerdsonboon and Boonsathirakul (2021) found students' shyness and reluctance to participate actively in class to be barriers. Moreover, Ghalmat et al. (2022) reported that students being grade-oriented, resulting in focusing more on memorisation of facts and also an inability to express their thoughts, makes the process of learning difficult for critical thinking.

Teachers also reported challenges related to their own lack of knowledge of critical thinking and professional training on how to impart it, technological competence, teacher shortages, and classroom management difficulties. This suggests that familiarity with critical thinking is not enough; teachers also need training to integrate it into classroom practice. Previous studies have found a gap between teachers' understanding of critical thinking and its real-life implementation in the classroom (Kavenuka, 2020; Ali et al., 2021; Ouslimani et al., 2021). Similarly, Zondo et al. (2025) reported that overcrowded classrooms hinder effective classroom management and that teachers' lack of conceptual knowledge and professional training in critical thinking affects critical thinking. Moreover, Kamnaz (2022) reported a shortage of teachers as one obstacle to promoting critical thinking. Teachers also described several home-related factors as major challenges, including limited guardian awareness, poor social and economic conditions, students' household responsibilities, parental expectations for good marks, and dependence on private tuition. This suggests that developing students' critical thinking depends on support beyond the classroom. Previous studies have reported similar challenges related to students, home environment, socioeconomic background, and family involvement (Abdulazeez & Ali, 2021; Davis & Willing, 2023; Essalih et al., 2023).

Teachers also reported challenges with teaching-learning materials, the classroom environment, and pedagogical practices. This suggests that promoting critical thinking depends not only on how teaching is conducted but also on the environment in which it takes place. Limited resources, difficulty attending to individual students in overcrowded classrooms, and overreliance on conventional teaching-learning processes may reduce students' opportunities to engage in critical thinking activities. Earlier literature on barriers mentioned inadequate resources, overcrowded classrooms, limited opportunities to create a conducive classroom for active participation, and traditional teaching approaches (Tan, 2020; Latorre-Coscolluela et al., 2021; Veliz, 2021; Bayou & Kitila, 2023).

Another curriculum-related barrier is that an inappropriate curriculum makes it difficult for teachers to promote critical thinking, as teachers perceive it. Activities such as questioning, discussion, and problem-solving require students to have enough time to understand, formulate, and express their ideas. However, when teachers are primarily focused on completing the prescribed syllabus within a very limited time period, these activities are hampered. Therefore, Marin and de la Pava (2017) and Davis and Willing (2023) reported similar challenges related to limited time and an appropriate curriculum structure.

Furthermore, teachers perceived several school-related challenges, including poor infrastructure and classroom conditions, limited ICT facilities, and a lack of teacher training to promote critical thinking. These findings indicate that effectively promoting critical thinking depends not only on teachers' skills and knowledge, but also on an adequate school environment and institutional support. Previous studies have reported similar findings related to limited ICT use, poor infrastructure, and a lack of professional programmes (Chesire et al., 2022; Kamnaz, 2022; Davis & Willing, 2023). Teachers also perceived contextual barriers, including student attendance driven only by the mid-day meal scheme and the absence of a conventional pass-fail system up to the elementary level.

Moreover, teachers also perceived assessment- and job-related barriers to promoting critical thinking. Teachers reported that pressure to achieve good marks and manage regular assessments in overcrowded classrooms may limit opportunities for formative assessment. This assessment pressure encourages teachers to rely on traditional assessment processes rather than critical student engagement (Khalid et al., 2021; Shahid, 2023). Teachers also identified that uncertain and limited career opportunities demotivate students from developing not only critical thinking but also their overall education. However, this finding goes beyond the classroom, highlighting that broader socio-economic and socio-political conditions may indirectly affect students' engagement with education and, consequently, their opportunities to develop critical thinking abilities.

Overall, these findings suggest that developing critical thinking should not be treated solely as teachers' responsibility. Teachers need adequate conceptual and pedagogical skills to promote critical thinking, but they also need a supportive home environment, student support and institutional support. Therefore, addressing the barriers identified in this study requires more attention to all stakeholders in the education system where critical thinking-oriented teaching is expected to occur.

Implications

The findings suggest organising more professional development programmes to strengthen teachers' understanding, conceptualisation, and pedagogical competence for effective classroom implementation of critical thinking. Moreover, adequate teaching-learning resources, ICT facilities, and good classroom conditions must be ensured at the institutional level. More awareness programs for guardians should be implemented to help them provide a healthy home environment for critical thinking. Furthermore, formative assessment practices must be given greater importance in the curriculum to support better student

engagement. Finally, educational policies and socio-political conditions at the local and contextual level should be emphasised to create a supportive environment for sustainable development of students' critical thinking.

Conclusion

Critical thinking skills are important life skills in the 21st century as society faces rapid technological advancements that lead to immense change in the way of life (Allamnakhrah, 2013 as cited in Khalid et al., 2021). Although teachers play a major role in promoting critical thinking, the findings of the present study indicate that other factors also contribute. Addressing these challenges requires appropriate teacher preparation, adequate resources, a supportive home and school environment, and greater institutional attention to encourage students to engage in more critical-thinking activities. Overall, the findings emphasise the need for a more supportive, context-appropriate approach to promoting critical thinking skills in elementary-level social science classrooms in West Bengal.

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