Methods in Fostering Critical Thinking and Communication Skills: Challenges and Possibilities

Uzma Afreen & M.J. Warsi

Abstract

The study reviews traditional and modern teaching methods employed at the undergraduate (UG) level in India, focusing on their potential to develop critical thinking (CT) and communication skills (CS). By exploring student perceptions and existing literature, the research seeks insights into the effectiveness of these methods in enhancing CT and CS. While Communicative Language Teaching (CLT) is noted for improving these skills, criticisms include insufficient grammar instruction and a lack of focus on individual learner differences. In contrast, methods like the Audio-Lingual Method (ALM) and GTM emphasise explicit grammar teaching, potentially addressing these shortcomings while developing distinct abilities.

A key strength of this paper lies in its acknowledgement that, even if teaching strategies like GTM and DM are not specifically meant to help students develop these abilities, their widespread use in the classroom calls for a more thorough analysis of how they affect students' learning outcomes.

Keywords: Teaching methods, critical thinking, communication skills, challenges

Introduction

In recent years, the significance of fostering critical thinking and communication skills among undergraduate students has gained

considerable attention in educational discourse. To prepare students for a rapidly evolving world, the effectiveness of different teaching methodologies remains a central concern. While education covers various aspects, including policy, organisation and financial procedures, there is widespread agreement that effective teaching is the critical factor in ensuring the success of educational systems (Barber & Mourshed, 2007; Hargreaves & Fullan, 2012; Hattie, 2003; Oliver et al., 2015; Stigler & Hiebert, 2009). Research has sought to optimise learning outcomes through various teaching methodologies (Hattie, 2009).

Traditional methods like the GTM and DM have traditionally dominated language education, but their effectiveness in promoting CT and CS needs further investigation. Wagner (2014) highlights a growing gap between the skills employers' value—critical thinking and communication—and the passive learning that still dominates many schools. Conversely, modern methodologies like the CLT have proved to enhance student engagement and skill development.

This paper explores the role of different teaching methods in developing CT and CS. It also investigates the opinion Undergraduate students on the extent to which the four teaching methods contribute to CT and Cs. The research questions guiding this study include:

1. What are the strengths and weaknesses of traditional and modern language teaching methods in fostering CT and CSs among UG students?
2. How do different teaching methodologies influence students' ability to engage in CT and CS?
3. How do students rate these methods in fostering CT and CSs?
4. What strategies can enhance their effectiveness?

To achieve these objectives, this study employs an eclectic approach, combining quantitative and qualitative data to offer valuable insights for educators and policymakers to improve language teaching and student skill development.

Importance of Critical Thinking and Communication Skills

One of the primary goals of education today is the development of CT and CS. Despite their limitations, classic methods like the GTM and the DM are still prevalent. The traditional lecture method does not

develop CT skills in the learners (Carter et al., 2016; Dehghanzadeh & Jafaraghaee, 2018).

GTM, which emphasises vocabulary and grammatical memorisation, often limits students' ability to apply language in real-world contexts, thus hindering CT and CS development (Richards & Rogers, 2014). While useful for language structure, GTM's focus on translation reduces opportunities for critical thinking and practical communication.

The DM, which promotes language immersion, also poses challenges. The focus on immersion sometimes neglects students' cultural backgrounds, which can hinder their ability to relate to the content they have been taught. The Audio-Lingual Method ALM, based on behaviourist theory, uses repetition and drills for fluency and pronunciation but limits student-driven inquiry, ignoring the internal psychological and mental processes essential for CT (Zhou & Brown, 2015). By focusing on rote learning, ALM fails to foster problem-solving and creative language use, which are crucial for developing CT and CS. Engaging students in tasks that require analysis and evaluation is key to their cognitive growth.

Conversely, CLT emphasises real-world contexts, allowing students to develop CT and CS through authentic language use. However, improper execution can limit its impact, especially in balancing accuracy and fluency (Richards & Rodgers, 2014). Educators must therefore understand and skillfully implement teaching strategies to ensure the development of CT and CS (Senthamarai, 2018; Tavoosy & Jelveh, 2019).

Overview of Teaching Methods

Table 1 shows how different teaching approaches prioritise the four language skills. GTM improves writing and reading but ignores speaking and listening. The DM presents difficulties since it enhances LSRW without providing native language support. The ALM prioritises practice drills for precise pronunciation and the use of native language is limited. This constraint hampers learners' cognitive skills. Incorporating reading and writing skills into the audio-lingual method can enhance language comprehension and production. Moreover, none of the three approaches frequently provide an opportunity for in-depth critical analysis. Conversely, by providing learners with real materials and cultural situations, CLT develops students' CT, problem-solving and practical language usage skills, ultimately leading to holistic

communicative competence. So, educators need to be skilled enough to understand and make use of this method to be successfully implemented in the classroom.

Table 1. *Comparative Analysis of Language Teaching Methods*

Aspects	*Grammar Translation*	*Direct Method*	*Audio-Lingual*	*Communicative Language Teaching*
Pedagogical Paradigm	Focus on translation & grammar rules	Emphasis on Oral communication in TL	Habit formation through repetition & mimicry	Real-life communication and functional language use
Instructional Strategies	Translation exercises & grammar explanations	Role-playing, Conversations	Pattern drills & repetition	Interactive tasks pairs /group activities
Learning Outcomes	Strong reading and writing skills but limited oral skills	Improved speaking and listening skills but limited reading skills	Accurate pronunciation & grammar accuracy but limited language accuracy	Proficiency in all LSRW skills, problem-solving ability, & real communication skills.

Discussion of Learning Theories

Understanding multiple learning theories is vital for determining how different teaching approaches affect the development of CT and CS. Each theory offers a distinct view of how students learn and how educators might improve the teaching and learning process.

The Behaviourist Approach

Behaviourism focuses on observable behaviour and reinforcement through repetition. Traditional methods like the GTM and DM align with behaviourist ideas by emphasising structured practice and memorization. While these strategies are effective for building foundational skills, they often fail to develop higher-order cognitive skills, underscoring the need for educators to incorporate elements that promote CT and CS to achieve educational objectives (Watson, 1913).

The Cognitivist Approach

Cognitivism, on the other hand, emphasises mental processes like memory, problem-solving, and information processing. CLT is one approach that encourages students to analyse and synthesise information

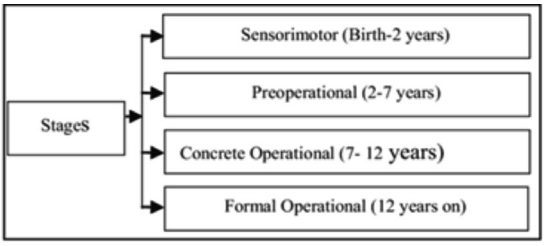
in active learning settings. Teachers can better align their strategies with cognitive learning theories by creating environments where students break down language structures and engage in meaningful communication, thus promoting CT and CS (Winne, 1985).

The Constructivist Approach

Constructivism emphasises active student participation in constructing their understanding (Vygotsky, 1978). This theory is particularly relevant to CLT, which involves collaborative projects, discussions, and role-playing, all of which foster both CS and CT. For instance, in group projects, students work together to research topics, develop presentations, and critically assess each other's contributions. Such collaborative settings promote language proficiency while enhancing students' ability to analyse different perspectives and synthesise ideas. Engaging in reflective discussions further deepens their understanding, encouraging both CT and CS.

Figure 1 outlines four stages of cognitive development. The Sensorimotor Stage (0-2 years) focuses on motor skills and sensory experiences. The Preoperational Stage (2-7 years) introduces symbolic thinking. The Concrete Operational Stage (7-11 years) emphasises logical reasoning, while the Formal Operational Stage (11-16 years) supports abstract thinking and problem-solving. The Formal Operational Stage is crucial for UG students, as it aligns with their ability to engage in complex reasoning and abstract thought, essential for CT and CS development. While Piaget's theory often centers on individual development, it also addresses social, affective, and personality factors that influence cooperative learning and, subsequently, CT and CS development. Just as individuals construct knowledge of the object world, they also develop abstract socio-moral and cognitive repertoires that they exercise throughout their lifespan, iteratively (Macqueeney et al., 2022).

Figure 1. *Piaget's Stages of Cognitive Development (Source: Adopted from Sinha and Deb (2017))*



Vygotsky's sociocultural theory (1978) critiques Piaget's neglect of social and cultural influences in learning. Vygotsky's ZPD emphasises that learning occurs on two levels: the social, where peer interactions happen, and the individual, where knowledge is internalised (Briner, 1999). This dual perspective highlights the importance of collaborative learning in fostering CT and CS, particularly in diverse UG classrooms (Figure 2).

Figure 2. *Vygotsky's Zone of Proximal Development (ZPD) (Source: Adapted from Gauvain (2020))*

Though both Piaget and Vygotsky are rooted in constructivism, they differ in focus. Piaget emphasises individual cognitive development, while Vygotsky stresses social interactions and cultural context. By understanding these differences, educators can design teaching practices with balanced approach that aligns with students' cognitive abilities and also leverage the benefits of peer collaboration and cultural awareness.

Methodology

Participants and Sampling

A simple random sampling technique was used to select participants from UG students enrolled in Foreign Language courses (Spanish, French, Russian, German and Chinese) at Aligarh Muslim University. This method ensured that every student had an equal chance of being selected, reducing selection bias and allowing the results to reflect the broader student population. A total of 85 students participated in the study, offering their insights on how different teaching methods influenced their CT and CSs.

Data Collection Methods

Data was collected using two methods:

1. **Literature Review**: This review focussed on existing studies examining the effectiveness of the GTM, DM, ALM, and CLT in teaching learning process. While these studies did not directly address the role of these methods in fostering CT and CS, related research on pedagogical approaches and skill development was analysed. The review sought to identify trends, challenges and indirect connections between these teaching methods and the development of CT and CS.
2. **Survey**: A structured questionnaire was administered to gather quantitative and qualitative data. Closed-ended questions used a 5-point Likert scale to rate each method's contribution to CT and CS. Open-ended questions allowed students to elaborate on the challenges and effects of these methods on their learning. Data was collected online over two weeks, and student anonymity was ensured to encourage honest feedback.

Literature Review Process

1. Identification of Relevant Literature: Literature was sourced from academic databases such as Google Scholar, Science.gov, Semantic Scholar, and Sage using keywords related to the teaching methods and skill development.
2. Inclusion Criteria: Peer-reviewed journal articles published between 2009 and 2024 were selected. These studies focussed on teaching methods in higher education and their broader implications for language learning outcomes and pedagogical practices. Where possible, articles discussing the development of CT and CS about these methods were included.
3. Number of Studies Analysed: A total of 18 studies were analysed, each examining different aspects of teaching methods in higher education. Although no direct studies focussed on the impact of these methods on CT and CS, the review included research on teaching practices that contribute to broader skill development.
4. Synthesis and Analysis: The literature was synthesised by identifying common trends, challenges, and potential links between

the teaching methods and students' development of CT and CS. These findings were compared to students' survey responses to highlight overlaps and gaps between theory and practice.

Summary of the Literature Review

Recent studies emphasise the importance of diverse teaching methodologies in improving student learning outcomes. However, there is a gap in the research when it comes to directly linking specific pedagogical strategies to the development of CT and CS. These studies highlight important trends, but do not offer empirical evidence on the relationship between teaching methods and these skills. Wali et al. (2022) conducted a systematic review of English teaching methods, stressing the need for teacher training and adaptation of strategies to suit specific contexts, which is crucial for improving student engagement and learning. Ullah and Iqbal (2020) compared traditional lecture methods with modern approaches, such as the word wall technique, revealing that modern methods improve students' conceptual understanding and academic performance, compared to traditional lecture methods. Khan and Ali (2023) explored age-appropriate pedagogy, revealing the importance of tailoring teaching methods to students' cognitive differences, thus promoting differentiated instruction. Lambright (2023) examined the influence of a teacher's mindset on student development, emphasising the importance of creating a supportive learning environment for student engagement, drawing on Vygotsky's ZPD.

Byrd (2016) explored the impact of culturally relevant teaching from the perspective of students. The study found that aligning pedagogical practices with students' cultural contexts significantly improves academic outcomes. Carter et al. (2016) investigated teaching strategies in nursing education and found that discipline-specific methods might be more effective in fostering CT. Dehghanzadeh and Jafaraghaee (2018) compared traditional lecture methods to flipped classroom on Iranian nursing. The study concluded that flipped classrooms significantly improved critical thinking dispositions, indicating the potential benefits of innovative instructional designs. Johnson and Johnson (2015) conducted a meta-analysis of cooperative learning, showing that it enhances academic achievement, social support, and positive learning attitudes. Macqueeney et al. (2022) examined Piaget's theories in education, emphasising the importance of aligning teaching

with students' cognitive developmental stages to enhance learning and retention.

Tavoosy and Jelveh (2019) examined the strategies teachers use to support student learning in language other than mother tongue. The study found that many observed lessons in language education still exhibit a teacher-centred approach, suggesting the need for more effective use of language teaching strategies. Wijnands et al. (2021) proposed a pedagogical framework that integrates cognitive learning with reflective development. The study found the positive outcomes that enhances students' ability to think critically about grammar and language structure. Gauvain (2020) analysed Vygotsky's socio-cultural theory and its relevance to collaborative learning. The study highlighted the importance of collaborative learning experiences in promoting CT and CS. Hargreaves and Fullan (2012) explored the role of professional capital in education, stressing that collaborative practices and leadership are vital for improving teaching effectiveness and student outcomes.

Stigler and Hiebert (2009) explores effective teaching practices across different cultures. The study identified substantial differences in teaching approaches across culture while Japan focusing on collaborative problem-solving, contrasting with America's emphasis on individual performance. Oliver et al. (2021) found that inquiry-based teaching methods in science education led to improved student performance, supporting the idea that innovative instructional approaches enhance learning outcomes. Richards and Rodgers (2014) provided a comprehensive overview of methodologies in language education, identifying CLT and Task-Based Language Teaching as effective strategies for language acquisition. Their study emphasised the importance of adaptability in instructional approaches to meet the needs of diverse learners. Similarly, Senthamarai (2018) explored the role of interactive teaching methods in enhancing student engagement and academic performance. The findings indicated a positive correlation between interactive strategies and learning outcomes, though challenges such as insufficient teacher training and limited resources were noted. Further emphasising the importance of teacher development, Abbas and University of South Alabama (2024) examined the impact of effective instructional strategies and professional training on education, concluding that these practices significantly improve student engagement and overall learning effectiveness.

Looking at the trend, it can be said that while existing studies provide valuable insights into the effectiveness of teaching methodologies in improving student engagement and general learning outcomes, there remains a notable lack of research specifically addressing their role in fostering CT and CS skills. By focusing on this underexplored area, this study not only seeks to bridge this gap but also contributes to the broader understanding of how targeted pedagogical approaches can enhance essential skills for academic and professional success.

Data Analysis

1. Quantitative Analysis: The closed-ended survey data was analysed using descriptive statistics. Percentage scores were calculated for each teaching method to gauge students' perceived contributions to CT and CS.
2. Qualitative Analysis: The open-ended responses and literature review were analysed through thematic analysis, where recurring themes were identified based on the challenges and benefits of each method. These themes were cross-referenced with the literature review to deepen the understanding of each method's influence on student learning.

Findings and Discussion

Findings from the Literature Review

The findings from the literature review offer valuable insights on the misinterpretations of Piaget's cognitive stages and Vygotsky's ZPD in educational contexts, while also revealing how teaching methods, although not directly focussed on fostering CT and CS, are closely connected to their development.

Educators often misinterpret Piaget's stages by focusing solely on cognitive development while neglecting the role of social interaction and cultural context (Macqueeney et al., 2022). This oversight can hinder the holistic application of Piaget's theory, which should integrate cognitive, social and emotional factors to foster CT and CS. Furthermore, assuming that all students in a specific age group are at the same cognitive stage can oversimplify learners' abilities, underscoring the need for differentiated instruction to support both cognitive growth and the development of CT and CS (Khan et al., 2023). Similarly, expecting preadolescents to think

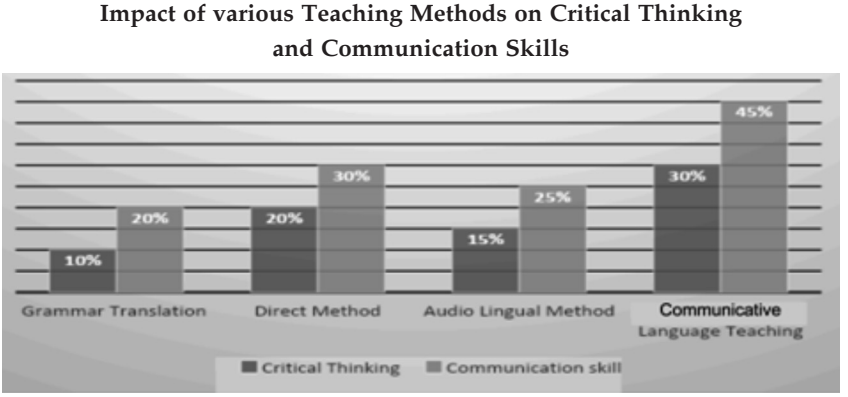
abstractly without acknowledging their progression through formal operations risks overlooking individual differences in development (Lambright, 2023). Vygotsky's ZPD highlights the need for scaffolding learning experiences to match students' current cognitive levels, with flexible teaching methods essential for addressing diverse needs of learners (Simply Psychology, 2024). Teaching methods should consider age-appropriateness and cognitive readiness of learners. Data shows high expectations can frustrate students, emphasised the need to recognise different learning styles and capabilities to develop essential skills (Khan & Ali, 2023).

Traditional methods often prioritise certain skills over others. For example, GTM emphasises writing and translation while neglecting oral communication (Wali et al., 2022). Literature indicates that primary teachers typically rely on lecture-based methods, which do not effectively enhance conceptual understanding and critical thinking skills (Ullah & Iqbal, 2020). It often ignores cultural context. The findings highlight the importance of culturally relevant teaching strategies that connect with students' interests and promote cultural awareness, leading to improved academic performance (Byrd, 2016). Traditional grammar teaching often emphasises rote memorisation of prescriptive rules rather than fostering critical thinking and reflective skills in students (Wijnands et al., 2021). This approach neglects the complexities of real-world language use, where grammatical issues are often ill-structured and do not have clear solutions (Wijnands et al., 2021). To address this gap, a pedagogical template has been proposed that integrates cognitive and reflective thinking models, encouraging students to analyse language from multiple perspectives: prescriptive norms, language reality and personal intuitions (Wijnands et al., 2021). By engaging with ill-structured problems, students can develop a deeper understanding of language and enhance their metalinguistic awareness, ultimately preparing them for more effective communication in diverse contexts (Wijnands et al., 2021). Furthermore, inadequate teacher training hampers the effective implementation of innovative methods. Teacher education programmes are vital for equipping educators with the knowledge and strategies needs to adapt to evolving educational demands and address diverse learner needs (Abbas & University of South Alabama, 2024).

Findings from the Student Survey

Table 2 summarises students' responses regarding the teaching methods used in the classroom and the challenges they face while learning. The data is based on a questionnaire that gathered students' views on how each method contributes to developing CT and CS. Results revealed that students rated CLT as the most effective method, contributing 30 per cent to CT and 45 per cent to CS. However, while CLT shows strong potential, its practical implementation requires balance. Incorporating cooperative learning, project-based tasks, group discussions, and debates can enhance CLT's effectiveness by fostering deeper engagement and collaboration among students. CLT improves language proficiency and supports CT and meaningful communication across diverse contexts (Johnson & Johnson, 2015). Despite positive perceptions of CLT, many students reported that not all teachers fully implemented it due to various constraints. Challenges included language difficulties, time constraints, and the nature of instructional methods, which hindered their ability to develop CT and CS.

Table 2. *Students' Views on the Effect of Various Teaching Methods on CT and CS*



Student 1 responded:

> "I learned to think more critically in group discussions and debates. This method helped me improve both my speaking and thinking skills. It's the most useful method for real-world communication. I enjoyed doing it. But less likely to be used by the teacher."

However, the GTM was perceived to have minimal impact on fostering

CT and CS, contributing to only about 10% of their ability to think critically. Similarly, students felt that it supported 20% of their CS development. The emphasis on grammar and translation exercises was seen as a barrier to engaging in meaningful communication:

Student 2 responded:

> "I felt like we were only focusing on grammar rules and translations, which didn't help me think critically. It's just about memorising and translating, but when I had to communicate in real life, I struggled."

Similarly, the DM received moderate ratings for both contributing about 20 per cent to their development of CT and 30 per cent to CS. Although students appreciated the increased focus on speaking, they expressed concerns about a lack of depth in understanding the language's grammatical structure:

Student 3 responded:

> "I liked that the method made us speak in English more, but sometimes I didn't fully understand what I was saying. It helped me practise communication, but I wish there were more explanations."

In contrast, the ALM received ratings, particularly in fostering critical thinking and was perceived to contribute 15 per cent to CT and 25 per cent to CS. Students remarked that while the drills improved their pronunciation, the repetitive nature of the exercises did little to enhance their critical thinking skills:

Student 4 responded:

> "The drills were good for pronunciation, but I didn't feel like I was thinking critically. It was all about repeating what the teacher said."

Analysis of the Findings

The analysis reveals a gap between the findings on CLT in the literature and students' actual learning experiences. While the literature identifies CLT as the most effective approach for fostering CT and CS through debates, discussions, and real-world applications (Richards & Rogers, 2014; Senthamarai, 2018), student feedback highlights challenges in its practical implementation.

Survey responses and interviews indicate that although CLT is viewed as the best method in theory, many students report that they are still

predominantly taught using traditional methods like GTM and DM, which focus more on grammar rules and translation rather than active engagement. This disparity in teaching practices results in limited opportunities for students to develop CT and CS. Students expressed frustration, noting that while they benefit from discussions and debates when used, these techniques are often sidelined in favour of more structured, lecture-based approach.

Recommendations

Based on the findings, the following strategies are recommended to enhance teaching methods for fostering CT and CS among undergraduate students:

1. **Integrative Skill Development:** Use instructional strategies that balance listening, speaking, reading, and writing skills, connecting them to real-life communication.
2. **Cultural and Contextual Relevance:** Incorporate culturally relevant resources and real-world scenarios in the curriculum to improve communicative proficiency and cultural understanding.
3. **Fostering Critical Thinking:** Implement educational strategies that encourage critical analysis, discussion, and problem-solving, moving beyond rote memorization through inquiry-based and problem-based learning.
4. **Adapting to Learner Needs:** Train instructors to recognise and address students' diverse cognitive and developmental stages, promoting pedagogical flexibility and ongoing professional development.
5. **Enhanced Teacher Training:** Invest in comprehensive training programmes focussed on pedagogical expertise and the practical application of modern teaching methods.
6. **Integrated Pedagogical Approach:** Address learners' insecurities and cultural differences through tailored teaching methods and cultural awareness, facilitating an integrated approach to cognitive development.

Limitations of the Present Study

It is important to note that the findings are based on students' perceptions

rather than empirical assessments of teaching effectiveness. The survey results reflect subjective experiences and cannot be taken as definitive measures of each method's ability to foster CT and CS. However, by combining student feedback with a review of relevant literature, this study seeks to highlight potential gaps in teaching practices that may hinder the development of these essential skills.

Conclusion

The findings of this study offer a narrative that provides insights into how teaching methods, especially CLT, can enhance classroom interactions and cognitive development. The integration of literature and survey findings underscores the necessity for a balanced approach to language teaching. While traditional methods provide foundational skills, they must be complemented by strategies that promote active learning and critical engagement. The findings suggest that educators should focus on creating a learning environment that encourages collaboration, cultural relevance and the application of language in authentic contexts to effectively foster CT and CS. This study calls for ongoing research and investment in professional development to adapt teaching practices to modern language education. As educators and learners embark on this transformative journey, a thought-provoking inquiry arises: can we truly empower the future generation without first fostering their ability to think critically and communicate effectively?

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