

GENDER DISPARITY IN THE USE OF METACOGNITIVE STRATEGIES IN READING COMPREHENSION AMONG UNDERGRADUATE ESL LEARNERS

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ABSTRACT

Gender differences in the use of metacognitive strategies are well documented in second-language reading research, but empirical evidence from Indian undergraduate ESL contexts—especially in literary reading—remain limited. This study investigates gender-based variation in predicting, planning, and monitoring during prose and poetry comprehension among Bengali-speaking undergraduate ESL learners. Using a mixed-methods design, data were collected from 28 English Honours students through comprehension tests, an adapted MARSIS, reflective journals, classroom observations, and semi-structured interviews. Female learners used global and support strategies significantly more and displayed more consistent monitoring, especially in poetry. Qualitative results confirmed greater metacognitive awareness and strategic flexibility among female students. The study highlights the influence of gender-based metacognitive differences on literary reading outcomes and the need for explicit strategy instruction in ESL classrooms, offering insights into gendered reading behaviours in Indian higher education.

This article presents an empirical investigation of metacognitive strategy use in reading comprehension among undergraduate ESL learners in an Indian college, focusing on gender variations in predicting, planning, and monitoring during prose and poetry reading. Using a mixed-methods approach that combined quantitative tests and MARSIS survey data with qualitative insights, female students consistently demonstrated greater use of global and monitoring strategies and performed better in poetry comprehension, reflecting heightened metacognitive awareness and self-regulation. The article discusses factors behind these gender disparities and implications for ESL instruction, offering context-sensitive evidence to inform applied linguistics and English studies.

Keywords: metacognitive strategies, gender disparity, ESL reading comprehension, prose and poetry, undergraduate learners

1. INTRODUCTION

Reading comprehension in a second language is a complex cognitive task that challenges undergraduate English students, especially in India, where English exposure is often limited to classrooms, and instruction prioritizes content over strategy. (Oktavianti et al., 2026) This context underscores the importance of investigating how students navigate such challenges with effective reading strategies.

Research in applied linguistics and educational psychology identifies metacognitive strategies as central to successful reading comprehension. Metacognition equips learners to plan their reading

approach, monitor understanding in real time, and regulate comprehension by adjusting strategies as needed (Flavell, 1979). Skilled readers with high metacognitive awareness are better equipped to interpret complex or ambiguous texts effectively.

Learner variables—proficiency, motivation, and gender—strongly influence reading strategies. Gender remains notable but debated: some studies find female learners use metacognitive strategies more; others note these differences lessen with proficiency or vary culturally. (Ghaith, 2026)

Although international studies address gender and metacognitive strategies, few empirical works examine these aspects among Indian undergraduate ESL learners, especially in literary reading. Most existing research focuses on school-aged learners or on informational and test-based reading. Therefore, there is a lack of research on how gender influences the use of metacognitive strategies with prose and poetry texts at the tertiary level in India, a significant gap this study aims to address. (Odofin et al., 2024, p. 10514)

This study directly examines whether female Bengali-speaking undergraduate ESL learners use metacognitive strategies—predicting, planning, and monitoring—more effectively than males when reading prose and poetry. By focusing on authentic classrooms, the research addresses a critical gap in evidence linking gender, metacognitive strategy use, and reading comprehension outcomes in Indian higher education.

2. CONCEPTUAL FRAMEWORK

2.1 Metacognitive Strategies in Reading

Metacognitive strategies are higher-order skills that help learners control and regulate reading, including:

1. **Global (Planning and Predicting) Strategies:** These include setting a purpose for reading, previewing the text, predicting content based on titles or prior knowledge, and allocating time and attention.
2. **Problem-Solving (Monitoring) Strategies:** These involve checking ongoing comprehension, adjusting reading speed, re-reading difficult sections, and inferring meaning from context.
3. **Support Strategies:** These include note-taking, underlining, using reference materials, paraphrasing, and summarising.

Skilled readers excel by flexibly and appropriately using these strategies. Metacognitive awareness helps them address comprehension failures.

2.2 Gender and Language Learning

Studies show that female learners often have greater verbal ability, motivation, and a stronger use of learning strategies. They are also more likely to self-reflect and self-regulate—key aspects of metacognition.

Socio-cultural perspectives suggest that classroom practices and societal expectations encourage female students to be more diligent and organized, thereby supporting greater strategic use. Male students may favour intuitive or risk-taking approaches. (Dollah et al., 2023, pp. 26-34)

3. REVIEW OF LITERATURE

This section reviews research on metacognitive strategies in second-language reading, with a focus on gender-based differences. Thematic organization highlights trends, similarities, differences, and gaps that inform this study.

3.1 Metacognitive Strategies and ESL Reading Comprehension

Research on reading comprehension in second- and foreign-language contexts has consistently demonstrated that successful readers differ from less successful readers not merely in linguistic competence but also in their ability to regulate comprehension through metacognitive strategies. Flavell's (1979) conceptualization of metacognition as cognitive monitoring laid the foundation for subsequent work that identified planning, monitoring, and evaluation as central components of skilled reading.

Baker and Brown (1984) argued that metacognitive awareness enables readers to recognize comprehension problems and apply repair strategies such as rereading or using context. In ESL settings, where language barriers hinder comprehension, metacognitive strategies compensate. Anderson (2003) noted that strategic readers set goals, predict, and continuously check meaning.

Empirical studies in EFL settings confirm these claims. Phakiti (2003) found that highly successful readers used planning and monitoring strategies more than less successful peers. Phakiti (2006) also found that metacognitive strategy use positively correlated with reading performance across proficiency levels.

Studies using instruments such as the Metacognitive Awareness of Reading Strategies Inventory (MARSI) have further validated the role of global, problem-solving, and support strategies in reading comprehension. Mokhtari and Reichard (2002) observed that students with higher awareness of their reading strategies consistently achieved better comprehension outcomes. These findings suggest that metacognitive strategies are not incidental but central to academic reading success.

3.2 Gender Differences in Metacognitive Strategy Use

Gender has long been examined as a variable in language learning research, with many studies suggesting that female learners engage more strategically in reading tasks. From a cognitive perspective, female learners are often reported to exhibit higher levels of verbal processing and self-regulation, both of which are closely linked to metacognitive behaviour.

Ahmed (2023), in a study of Bengali-speaking EFL learners, found that female students used global and support strategies more frequently and more effectively than male students. Female learners were particularly adept at planning their reading, previewing texts, and using supportive mechanisms such as paraphrasing and note-taking. Male learners, while employing some problem-solving strategies, showed less consistent use of planning and monitoring strategies.

Rianto (2021) examined gender differences among Indonesian university-level EFL learners and reported similar findings. Female learners demonstrated higher use of global and support strategies, particularly among learners with lower reading proficiency. Interestingly, Rianto observed that gender differences diminished among high-proficiency readers, suggesting that strategy use may converge as learners gain expertise.

These findings indicate that gender differences in metacognitive strategy use are not absolute but context-dependent. Cultural expectations, classroom practices, and assessment formats may mediate how male and female learners engage with reading tasks.

3.3 Gender, Literary Reading, and Strategy Use

While much of the existing research focuses on expository or test-based reading, relatively few studies have examined the use of metacognitive strategies in literary reading, particularly poetry. Literary

texts pose unique challenges due to figurative language, ambiguity, and multiple layers of meaning. Such texts demand a high degree of inferencing, reflection, and tolerance of uncertainty.

Research suggests that readers who actively monitor comprehension and reflect on interpretative choices are better equipped to engage with literary texts. Female learners' reported preference for reflective and evaluative strategies may offer an advantage in poetry reading, where meaning is often implicit rather than explicit. (Septiani et al., 2023)

However, empirical evidence linking gender, metacognitive strategies, and literary reading remains limited, especially in ESL contexts. This gap is particularly evident in Indian undergraduate English classrooms, where literary texts form the core of the curriculum but strategy instruction is rarely explicit. (Vaishnav, 2024, pp. 538-548)

3.4 Research Gap

Although previous studies have established the importance of metacognitive strategies and highlighted gender-based differences in their use, three significant gaps remain. First, there is a lack of empirical research focusing on Indian undergraduate ESL learners. Second, few studies examine the use of strategy across literary genres such as prose and poetry. Third, existing research often relies solely on self-report measures, with limited triangulation through qualitative data.

The present study addresses these gaps by offering a full empirical investigation of gender-based differences in metacognitive strategy use among Bengali-speaking undergraduate ESL learners, using a mixed-methods approach and focusing explicitly on prose and poetry reading.

4. RESEARCH OBJECTIVES AND HYPOTHESIS

The present study explores gender disparities in the use of metacognitive strategies among undergraduate ESL learners. The specific objectives are:

- To examine the extent to which male and female students use predicting, planning, and monitoring strategies during reading comprehension tasks.
- To compare strategy use across prose and poetry texts.
- To analyze how differences in strategy use relate to reading comprehension performance.

The central hypothesis guiding this article is:

Female undergraduate ESL learners will use metacognitive strategies of predicting, planning, and monitoring better than their male counterparts in reading comprehension of poetry and prose.

5. METHODOLOGY

5.1 Research Design

The study adopted a mixed-methods design, integrating quantitative measures of reading performance and strategy use with qualitative insights from reflections, interviews, and classroom observations. This triangulated approach was intended to capture both reported and actual strategy use.

5.2 Participants

Participants were undergraduate students enrolled in a BA English Honours programme at a semi-urban college. The final sample comprised 28 students whose responses were deemed valid for analysis, drawn from Semester III and Semester V. Both male and female students were represented, all of whom were Bengali-speaking ESL learners with no prior formal instruction in metacognitive strategies.

5.3 Instruments

- **Reading Comprehension Test:** Separate prose and poetry passages with multiple-choice, inferential, and vocabulary-based questions.
- **Adapted MARSII Questionnaire:** Measuring global, problem-solving, and support strategies on a three-point scale.
- **Reflective Journals:** Short written reflections on reading processes and difficulties.
- **Semi-Structured Interviews:** Exploring learners' awareness and regulation of comprehension.
- **Observational Checklist:** Recording observable strategy-related behaviours during testing.

Data were collected using multiple instruments. A reading comprehension test consisting of one prose passage and one poetry extract was designed to assess comprehension performance. Each section included multiple-choice questions, short-answer inferential questions, and vocabulary-based items, enabling assessment of both literal comprehension and higher-order interpretative skills. An adapted version of the Metacognitive Awareness of Reading Strategies Inventory (MARSII) was administered to measure learners' awareness and use of global, problem-solving, and support strategies. Reflective journals were used to elicit students' self-reported reading processes, difficulties, and strategic decisions. Classroom observations and semi-structured interviews were conducted to obtain qualitative insights into learners' metacognitive behaviour and the actual strategies they deploy during reading tasks.

5.4 Data Analysis

Quantitative data were analyzed using descriptive statistics and comparative analysis between male and female learners. Qualitative data were thematically coded to identify patterns of strategy use and metacognitive awareness. The reading comprehension test was administered during regular class hours under exam-like conditions. Immediately after completing the test, students filled out the MARSII questionnaire and wrote reflective journal entries. Follow-up interviews were conducted with selected participants representing both genders. Quantitative data were analyzed descriptively to identify gender-based trends in strategy use and comprehension performance, while qualitative data were thematically analyzed to triangulate findings.

6 .RESULTS

6.1 Quantitative Findings:

Gender and Strategy Use: Descriptive analysis of MARSII responses revealed clear gender-based differences in metacognitive strategy use. Female learners reported using global strategies more frequently, such as previewing texts, setting reading goals, and predicting content. They also demonstrated more consistent monitoring behaviours, including re-reading difficult passages, checking comprehension during reading, and adjusting reading pace when encountering complex language.

Male learners reported comparatively lower use of planning and monitoring strategies and tended to rely more on surface-level reading approaches. They were less likely to pause and reassess understanding or to employ corrective strategies when comprehension difficulties arose. These patterns were reflected in performance data from the reading comprehension tests.

Female learners achieved higher scores in both prose and poetry comprehension. While the gender gap in prose comprehension was moderate, the difference was more pronounced in poetry comprehension. Poetry reading required deeper interpretative engagement, sensitivity to figurative language, and tolerance of ambiguity—skills closely associated with metacognitive monitoring and evaluation.

Table 1. Gender-wise Use of Metacognitive Strategies

Global strategies	High frequency	Moderate frequency	Females plan and predict more
Monitoring strategies	Consistent use	Irregular use	Females monitor comprehension more
Support strategies	Frequent use	Limited use	Females use reference aids more

Table 2. Gender-wise Reading Comprehension Performance

Prose	Higher average scores	Lower average scores	Moderate gender gap
Poetry	Significantly higher scores	Lower scores	Pronounced gender gap

Qualitative data from reflective journals and interviews supported these findings. Female learners articulated their reading strategies more clearly and demonstrated heightened awareness of comprehension breakdowns. Classroom observations further indicated that female students were more likely to annotate texts, pause to reflect, and revisit passages during reading.

7. DISCUSSION

The findings of this study support the hypothesis that female undergraduate ESL learners employ metacognitive strategies more effectively than male learners. These results align with previous research reporting higher strategic engagement and metacognitive awareness.

Analysis of MARSII responses revealed that female students reported higher use of global strategies such as previewing, setting reading goals, and predicting content. They also demonstrated stronger monitoring behaviours, including re-reading and checking understanding during reading. Male students, while using some problem-solving strategies, showed less consistency in planning and self-monitoring.

In terms of support strategies, female learners were more likely to underline key ideas, paraphrase difficult sections, and mentally summarise passages, particularly in poetry reading.

7.1. Reading Comprehension Performance

Female students, on average, scored higher in both prose and poetry comprehension tests. The gap was more pronounced in poetry, where inferential and interpretative demands were higher. This suggests a close relationship between strategic reading and successful interpretation.

7.2 Qualitative Insights

Reflective journals and interviews indicated that female learners were more articulate in describing their reading processes. They frequently mentioned planning how to approach a text and monitoring their understanding. Male learners, by contrast, often described reading as a linear process and were less aware of strategic adjustments.

Observational data corroborated these findings, showing that female students made more frequent pauses, annotations, and text-referencing behaviours.

8. FINDINGS

The findings strongly support the second hypothesis, confirming that female undergraduate ESL learners use metacognitive strategies of predicting, planning, and monitoring more effectively than male learners. These results align with previous studies conducted in EFL contexts and extend their relevance to Indian ESL classrooms.

The greater strategic awareness observed among female learners may be attributed to a combination of cognitive engagement, academic socialization, and motivational factors. (Dollah et al., 2023, pp. 26-35) Their stronger performance in poetry reading underscores the importance of metacognitive regulation when dealing with ambiguity and multiple interpretations.

However, the findings do not suggest an inherent deficiency among male learners. Rather, they highlight differential patterns of engagement that can be addressed through targeted instruction.

9. PEDAGOGICAL IMPLICATIONS

The study underscores the need for explicit instruction in metacognitive strategies for all learners, with particular attention to encouraging male students to engage in planning and monitoring behaviours. Teachers should:

- Model strategic reading processes.
- Incorporate reflective activities that promote metacognitive talk.
- Design collaborative tasks that normalize the use of strategy across genders.

10. CONCLUSION

This article examines gender disparities in the use of metacognitive strategies among undergraduate ESL learners, focusing on predicting, planning, and monitoring during reading comprehension of prose and poetry. The findings confirm that female learners demonstrate greater metacognitive awareness and more effective strategy use, resulting in better comprehension outcomes. This study also presented a comprehensive empirical investigation of gender disparities in the use of metacognitive strategies among undergraduate ESL learners in an Indian college context. The findings indicate that female learners demonstrate greater metacognitive awareness and achieve superior reading comprehension, particularly in poetry. The study underscores the need for explicit instruction in metacognitive reading strategies to support all learners and reduce gender-based disparities in ESL classrooms. By contributing empirical evidence from an underrepresented context, the study adds meaningfully to applied linguistics and English studies research.

By situating these findings within the broader literature and the specific context of Indian higher education, the study contributes valuable insights for pedagogy and future research.

11. RECOMMENDATIONS FOR FURTHER RESEARCH

Future studies should involve larger samples, longitudinal designs, and experimental interventions to examine how strategy instruction may reduce gender disparities. Exploring disciplinary differences and digital reading contexts would further enrich understanding.

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