Reading Strategy Patterns in Secondary School Learners: Gender and Cultural Familiarity in Multicultural Texts

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ARTICLE INFO

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ABSTRACT

Understanding how learners use reading strategies across culturally familiar and unfamiliar texts is vital for effective literacy instruction, yet gender-related patterns in this context remain underexplored. This study examined gender differences in reading strategy use among 200 senior secondary English as a Second Language (ESL) learners in Manzini, Eswatini. Using a within-subjects quasi-experimental design, participants (114 female, 86 male) read two narrative–descriptive passages differing in cultural familiarity in a counterbalanced order, two weeks apart, and completed the Survey of Reading Strategies (SORS). The passages were matched for length and readability, and the SORS demonstrated excellent internal consistency (αoverall = .94; subscales α = .92–.88). Data were analysed using descriptive statistics, paired-samples t-tests, Welch's t-tests, Pearson correlations, and effect-size estimates (Cohen's *d*). Results showed that girls reported significantly higher use of global and total strategies than boys (Global: $t(\approx198) = -2.56$, $p = .011$, $d = .31$; Total: $t(\approx198) = -2.29$, $p = .023$, $d = .32$), while no significant gender differences appeared for support or problem-solving strategies. Text familiarity did not significantly affect strategy use (paired tests $p > .24$), and inter-strategy correlations were minimal (average r ≈ −0.001 to −0.005), indicating largely independent deployment. The findings reveal subtle gendered tendencies and a limited effect of cultural familiarity, underscoring that learners' strategy orchestration cannot be assumed. Implications call for culturally responsive and gender-sensitive literacy instruction that explicitly scaffolds metacognitive awareness and strategy integration in ESL classrooms.

INTRODUCTION

Literacy stands at the heart of language education, yet its meaning has evolved beyond decoding words on a page. In today's multicultural classrooms, reading is not merely a cognitive act but a negotiation of identities, cultures, and worldviews (Grabe & Stoller, 2022). Learners

increasingly encounter texts that challenge their linguistic competence and cultural understanding, raising crucial questions about how they make meaning across diverse cultural boundaries (Syatriana et al., 2025). In English as a Second or Foreign Language (ESL/EFL) settings, reading literacy represents both a cognitive skill and a sociocultural practice (Afflerbach et al., 2020). As global classrooms grow more culturally complex, learners engage with texts rooted in different traditions and perspectives, creating both opportunities for intercultural learning and new layers of comprehension difficulty (List et al., 2024) Understanding how readers strategically navigate such culturally varied materials is, therefore, essential for advancing literacy pedagogy, especially in multilingual regions, where learners routinely negotiate between local and global identities through English.

Reading strategies are widely acknowledged as central to literacy development in second language education. Strategic readers employ Global strategies (such as previewing and monitoring), Support strategies (such as note-taking and underlining), and Problem-solving strategies (such as rereading and guessing from context) to enhance comprehension (Ghimire & Mokhtari, 2025). These strategies are indicators of metacognitive awareness and targets of explicit literacy instruction in many EFL/ESL contexts (Grabe & Stoller, 2022). Strategy use is strongly tied to self-regulated learning (Schunk & Zimmerman, 2023), where learners plan, monitor, and evaluate their comprehension processes. Consequently, examining how learners use reading strategies when faced with multicultural texts provides valuable insights for literacy pedagogy. Moreover, research on culturally responsive instruction suggests that effective literacy teaching must account for how learners' cultural backgrounds shape their strategic engagement with texts, thereby linking metacognitive strategy use with broader sociocultural learning contexts (Afflerbach et al., 2020).

A growing body of research has investigated gender differences in reading strategies, often reporting that girls employ a wider range and higher frequency of strategies than boys. For example, Sayed et al. (2025) demonstrate significant gender differences in Support reading strategy use among Omani students, with females consistently outscoring their male counterparts. Similarly, Okyar (2021) found that female Turkish EFL learners reported significantly higher use of Support and Global reading strategies compared to their male counterparts. However, the magnitude and consistency of gender effects remain contested. Studies, such as Rianto (2021) and Wallace et al. (2021) report negligible differences, while (Espinoza & Strasser, 2020) highlight more nuanced gendered tendencies in Chilean students' strategy use. These inconsistencies suggest that gender differences in reading strategies may be mediated by contextual variables such as culture, academic background, and task demands (Wallace et al., 2021). Understanding whether and how such differences manifest in multicultural reading contexts is critical, since literacy education must attend to the needs of diverse learners without assuming uniformity (Ghimire & Mokhtari, 2025). Despite extensive global research, evidence from African ESL contexts remains sparse. Studies rarely address how sociocultural norms around gender, access to literacy resources, and language hierarchies shape boys' and girls' strategic reading behaviour (Alumbungu & Mpofu, 2025; Elston et al., 2022; Wendaferew & Damtew, 2023). Such gaps call for contextually grounded investigations that reflect the realities of African classrooms.

Another factor central to literacy development is the role of cultural familiarity. Schema theory (Rumelhart, 2017) suggests that readers rely on prior cultural knowledge to interpret new texts, meaning that culturally familiar materials should elicit stronger comprehension and more active

strategy use than unfamiliar ones (Espinoza & Strasser, 2020). However, empirical studies have yielded mixed results. While some research demonstrates clear benefits of cultural familiarity, others find only marginal differences, suggesting that readers may apply stable strategy repertoires regardless of text type. For example, Md Isa et al. (2022) show that gender and nationality interact with cultural familiarity in shaping strategy preferences. On the other hand, Wallace et al. (2021) argue that strategy use often reflects individual learner profiles rather than text-driven differences. This debate underscores the need to revisit schema theory through an intercultural lens, recognising that readers' schemas may draw on hybrid cultural experiences rather than fixed cultural categories in multilingual contexts (Emmott & Alexander, 2025). Exploring how such hybrid schemas influence strategic reading could yield richer explanations of comprehension in multicultural settings.

A further issue, rarely investigated, concerns whether students coordinate strategies or deploy them independently. Theoretical models of literacy and self-regulated learning assume that readers integrate Global, Support, and Problem-solving strategies in a complementary way (Rumelhart, 2017; Schunk & Zimmerman, 2023; Sweller, 2024). However, little empirical work has tested the extent to which strategies actually interact in practice. Rianto (2021), for instance, found that female students demonstrated significantly higher overall, problem-solving, and support strategy use than male university students. However, effect sizes were small, with gender differences evident only among less skilled readers. This distinction is crucial for teachers, as gender differences, particularly among less skilled readers, have instructional implications (Sayed et al., 2025). If learners use strategies in isolation rather than in concert, instructional designs must explicitly scaffold strategy orchestration rather than assume learners will naturally integrate them (Wallace et al., 2021).

Despite extensive research on reading strategies, little is known about how learners dynamically coordinate Global, Support, and Problem-solving strategies in relation to gender and cultural familiarity (Chen et al., 2024). Most studies isolate these variables, resulting in fragmented insights into how metacognitive control operates in multicultural ESL contexts (Chen, 2024; Pahrizal et al., 2025; Salsyabillah et al., 2025; Sisay & Gebeyehu, 2025; Tsai & Huang, 2024).

This research gap limits current understanding of how learners regulate comprehension when navigating culturally diverse materials and how gender and culture jointly shape metacognitive processes (Chen et al., 2024). Addressing this gap is essential for broadening theoretical models of reading strategy use and generating empirically grounded insights that reflect learners' cultural and linguistic realities. Such integrative inquiry is crucial for developing a holistic picture of literacy as both a cognitive and sociocultural enterprise, particularly within the multilingual realities in ESL/EFL contexts (Smith et al., 2021).

Accordingly, the present study addresses this gap by examining how gender, text cultural familiarity, and inter-strategy coordination jointly shape reading strategy use among senior secondary ESL learners in Eswatini. By situating these dimensions within the Gender–Culture–Strategy Interaction Framework (GCSIF) (see Figure 1), the study advances an integrative approach that aligns cognitive, metacognitive, and sociocultural perspectives on reading.
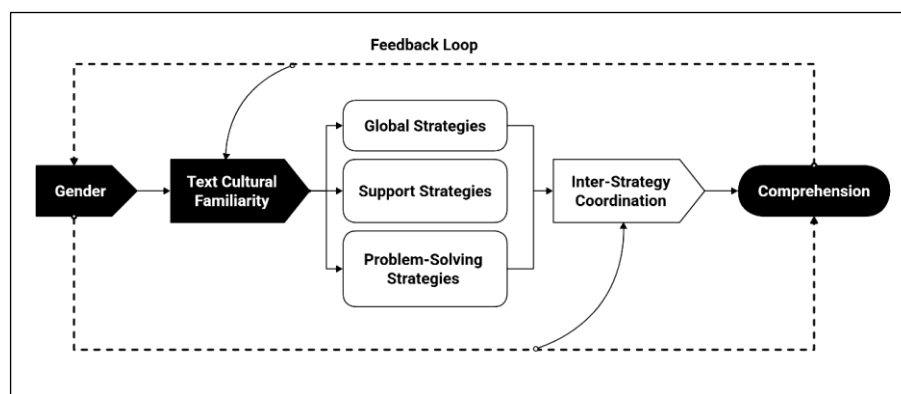
Figure 1. Gender–Culture–Strategy Interaction Framework (GCSIF)

The GCSIF integrates insights from gendered patterns in reading (Novita et al., 2023; Syatriana et al., 2025; Zhao et al., 2025), schema-based theories of cultural familiarity (Wenying, 2022), and models of strategy coordination from self-regulated learning Schunk & Zimmerman, 2023). The feedback loop shows the recursive process of reading, strategy coordination, and comprehension. The framework highlights how gender and text cultural familiarity are expected to influence the use of Global, Support, and Problem-solving strategies to facilitate reading comprehension in multicultural texts. Notably, the GCSIF assumes that these strategies are not used in isolation but interact in coordinated ways to facilitate comprehension.

In ESL/EFL contexts, where multilingualism and cultural diversity shape literacy experiences, the GCSIF is particularly relevant. It situates reading strategy use within the gendered dynamics of literacy practices and the alignment, or misalignment, between learners and texts. This contextualisation underscores the importance of examining not only whether gender differences exist (Espinoza & Strasser, 2020), but also how cultural familiarity mediates learners' engagement with strategies across diverse reading materials (Syatriana et al., 2025).

The GCSIF illustrates the hypothesised relationships guiding the present study. It shows how gender and text cultural familiarity are expected to influence students' use of Global, Support, and Problem-solving reading strategies independently and interactively. The model also assumes positive associations among strategy types, reflecting potential inter-strategy coordination across multicultural reading contexts.

This way, the study contributes to global debates regarding gender differences and cultural familiarity in strategy use (Rezaei, 2025; Sayed et al., 2025; Wallace et al., 2021), and how strategies interact during multicultural reading (Novita et al., 2023; Petnoosed, 2021; Toti & Hamid, 2022). Specifically, the study addresses the following research questions:

1. What reading strategies do boys predominantly employ when engaging with multicultural texts?
2. What reading strategies do girls predominantly employ when engaging with multicultural texts?
3. In what ways do boys' and girls' reading strategies converge or diverge across multicultural texts?
4. How do different reading strategies interact within students' engagement with multicultural texts?

Based on previous research and theoretical frameworks, the following hypotheses were formulated:

- H_1: Girls will report higher overall use of reading strategies than boys, regardless of text type.
- H_2: Both boys and girls will report greater use of reading strategies for culturally familiar texts compared to culturally unfamiliar texts.
- H_3: The increase in strategy use from culturally unfamiliar to culturally familiar texts will be greater for boys than for girls.
- H_4: The use of one reading strategy will be positively associated with the use of other strategies, indicating interaction among strategies across students and text types.

METHODS

Research Design

The study employed a quantitative, within-subjects quasi-experimental design (Coe et al., 2025) to investigate how male and female learners applied reading strategies when engaging with culturally familiar and unfamiliar texts. The within-subjects design was particularly suited to this purpose, as it enabled observation of shifts in strategy use within the same participants, without the confounding influence of group differences (Johnson & Christensen, 2020). That is, the design allowed direct comparison of the same learners' strategy use under two cultural conditions, controlling for individual variability. The quantitative approach also supported inferential analysis of gender and familiarity effects through *t*-tests and correlation techniques (Ravid, 2025).

Respondents

The study involved 200 learners drawn from four senior secondary schools in the Manzini region of Eswatini. A multi-stage stratified random sampling procedure ensured balanced representation (Johnson & Christensen, 2020). Schools were classified as urban or peri-urban, and two from each category were randomly selected. Within each school, one academic stream class was chosen, yielding approximately 50 learners per site.

The final sample consisted of 114 females (57%) and 86 males (43%), aged 16–22 years (see Table 1). All participants were enrolled in English as a Second Language (ESL), a compulsory subject. Eligibility was confirmed through a triangulated process combining teacher judgment, recent school assessments, and English General Certificate of Secondary Education (EGCSE) scores, ensuring participants were at an intermediate proficiency level.

Targeting learners in the second-to-last year of school was intentional. At this stage, learners consolidate reading strategies in preparation for examinations, while their approaches remain flexible and responsive to instruction (Grabe & Stoller, 2022). Including participants from both urban and peri-urban schools enhanced the sample's representativeness.

Table 1. Respondents' Demographic Profile (*n* = 200)

School	School Location	Total	Gender	No. of Respondents	Age-Range
School A	Urban	48	M	20	18–22
			F	28	17–20
School B	Per-urban	52	M	22	17–22
			F	30	16–20
School C	Urban	51	M	23	18–20
			F	28	16–21
School D	Peri-urban	49	M	21	18–22
			F	28	17–20

Note: F = female; M = male

Although there were minor curricular variations across schools, the learners' English exposure and general literacy levels were broadly comparable, suggesting the sample reflected a reasonable cross-section of senior secondary learners in the region. All respondents were assured anonymity and voluntary participation, with no academic consequences attached to involvement or withdrawal (Alford & Teater, 2025). Gender distribution was tracked to ensure adequate comparison across groups.

Instruments

Two instruments were employed: culturally distinct reading passages and the *Survey of Reading Strategies (SORS),* developed by Mokhtari and Sheorey (2002). Together, these provided complementary insights into how learners approached texts of differing familiarity.

The reading passages were selected from authentic examination materials to ensure age appropriateness, academic relevance, and comparable difficulty levels. The culturally familiar passage, *Maputo* (EGCSE Paper 1), described a holiday setting in Mozambique with relatable elements such as markets, barbecues, and local architecture. In contrast, the culturally unfamiliar passage, *The Great Barrier Reef* (University of Cambridge Local Examinations Syndicate [UCLES] Paper 1), focused on marine life and scuba diving in Australia, which learners regarded as foreign and more challenging. Both texts were narrative–descriptive, of similar length (388 vs. 387 words), and closely matched in readability (Flesch scores: 58.6 and 58.9, see Table 2). They were vetted by three experienced English teachers and pilot tested with comparable students, confirming their appropriateness and their alignment with the intended cultural distinction.

Table 2. Characteristics of the Reading Passages

Characteristic	Culturally Familiar	Culturally Unfamiliar
Total	388 words	387 words
Flesch readability test results	58.6 of 100	58.9 of 100
Flesch Kincaid grade level	9.2	10.5
Paragraphs	6	6
Sentences	24	18
Average words per sentence	16.46	21.78
Complex words	54	43
Percent of complex words	13.67%	10.97%
Average syllables per word	1.55	1.49

The SORS, a widely validated 30-item self-report inventory (Mokhtari & Sheorey, 2002), was used to capture learners' metacognitive awareness of reading strategies. It measures three categories: global strategies (13 items; e.g., predicting, previewing, using context clues), support strategies (9 items; e.g., note-taking, consulting references), and problem-solving strategies (8 items; e.g., rereading, adjusting reading pace). Items are rated on a 5-point Likert scale, with higher scores indicating more frequent reported use. Reliability in this study was excellent (α = .92 for global, α = .88 for support, α = .90 for problem-solving, and α = .94 overall).

Integrating authentic passages with the SORS enhanced ecological validity and provided a robust framework for analysing how cultural familiarity influenced strategic reading. Readability was controlled across texts, ensuring that observed differences reflected cultural variables rather than linguistic difficulty. Learners completed the SORS immediately after reading each passage to ensure responses reflected their current reading experience.

Data Collection Procedure

Data collection was conducted over three weeks between September and October 2024, following ethical clearance. The researchers coordinated with four participating schools to schedule data-gathering sessions during regular English periods. In line with quasi-experimental research conventions Hinton (2024), data were collected in intact classrooms, under the supervision of the subject teacher and the researcher.

Each learner first read a culturally familiar passage and completed the SORS. After a two-week interval, they read a culturally unfamiliar passage and completed the SORS again. No comprehension questions were included, as the focus was solely on self-reported strategy use.

To minimise sequence and practice effects, learners were randomly assigned to counterbalanced presentation orders effects (Alford & Teater, 2025): half began with the familiar passage, while the other half began with the unfamiliar one effects. Each session lasted approximately 45 minutes and followed standardised procedures across schools to ensure consistency. All questionnaires were collected immediately after completion to maintain data integrity and reduce response bias, as emphasised by Johnson and Christensen (2020).

Data Analysis

Data were processed using Statistical Package for the Social Sciences (SPSS) version 28. Descriptive statistics were used to summarise reported strategy use across both text conditions, addressing the first and the second research questions (RQ 1 & RQ2). Normality was assessed using Shapiro–Wilk tests, histograms, and Q–Q plots (Hinton, 2024) to address the research questions:

- RQ1 and RQ2: Gendered patterns of strategy use were examined using independent Welch *t*-tests comparing boys' and girls' mean scores.
- RQ3: The influence of text familiarity was tested using paired-samples *t*-tests comparing familiar vs. unfamiliar passages within subjects.
- RQ4: Inter-strategy interactions were analysed through Pearson's correlations among the three SORS subscales (Global, Support, Problem-solving).

Effect sizes (Cohen's *d*) were calculated to indicate the magnitude of differences. All analyses used a significance level of $p < .05$. Although Likert-scale data are ordinal, they were treated as interval-level data for subscale and inferential analyses, consistent with established practice in strategy research (Ravid, 2025). All statistical assumptions were verified prior to interpretation to ensure robustness (Hinton, 2024). A line graph was also used to visually depict mean trends in strategy use across gender and text familiarity conditions (see Figure 2).

Ethical Considerations

The University Research Ethics Committee (HSSREC 00007315/2024) granted approval for the study. Written informed consent was obtained from all respondents, with additional parental assent for learners under 18. Data were anonymised and securely stored, with access limited to the research team. Respondents were informed of the study's purpose, confidentiality procedures, and right to withdraw without penalty (Alford & Teater, 2025). Upon completion, preliminary findings were shared with participating schools and teachers to ensure transparency and support pedagogical reflection.

FINDINGS AND DISCUSSION

Findings

This section presents the results obtained from the SORS completed by 200 senior secondary learners after reading culturally familiar and unfamiliar texts. The findings are organised according to the study's four research questions (R1-R4), focusing on gendered patterns of strategy use, the influence of text familiarity, convergence and divergence between male and female learners, and interactions among reading strategies. Descriptive and inferential statistics illustrate key differences and relationships observed in the data (Johnson & Christensen, 2020).

Reading strategies predominantly used by boys and girls (RQ1 & RQ2)

Descriptive statistics were first computed to summarise learners' reported use of Global, Support, and Problem-solving strategies across both culturally familiar and unfamiliar texts. The were analysed to identify differences in reading strategy use by gender and text familiarity. Table 3 presents the descriptive statistics for the three SORS subscales and total scores.

Both boys and girls reported moderate use of Global, Support, and Problem-solving strategies across culturally familiar and unfamiliar texts. Paired-samples t-tests indicated that text familiarity did not significantly influence strategy use for either gender (all $p > .24$).

Table 3. Descriptive Statistics of Reading Strategies by Gender and Text Familiarity

Reading Strategy	Boys – Familiar M (SD)	Boys – Unfamiliar M (SD)	Girls – Familiar M (SD)	Girls – Unfamiliar M (SD)
Global	3.05 (0.62)	3.03 (0.65)	3.13 (0.58)	3.09 (0.61)
Support	3.03 (0.55)	3.05 (0.57)	3.04 (0.53)	3.02 (0.54)
Problem-solving	2.99 (0.70)	3.05 (0.72)	3.08 (0.66)	3.08 (0.68)
Total SORS	3.03 (0.60)	3.04 (0.61)	3.08 (0.58)	3.07 (0.59)

Note: N = 200. Higher values indicate greater reported strategy use.

As shown in Table 3, girls reported slightly higher mean scores than boys across Global and Total SORS measures, although differences were minor. These findings suggest balanced strategic engagement across genders and text types, showing no support for H_2.

Figure 2 visually compares boys' and girls' mean SORS scores across the three subscales and the total scale under culturally familiar and unfamiliar text conditions to visualise these differences. The nearly parallel lines illustrate stable strategy use across text types and minimal gender variation.
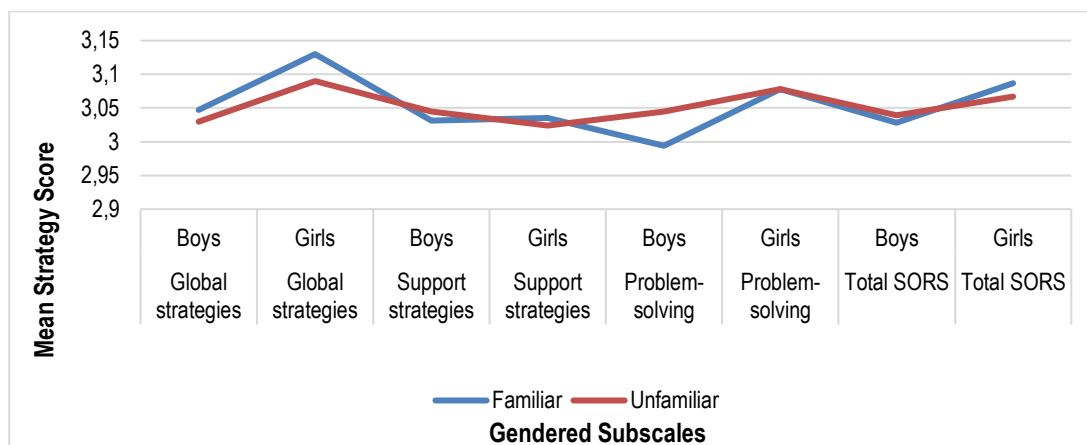

Figure 2. Comparison of reading strategy use by gender across culturally familiar and unfamiliar texts.
Note: Mean scores derived from the SORS for 200 senior secondary learners. Familiar = culturally familiar passage; Unfamiliar = culturally unfamiliar passage.

Convergence and divergence of boys' and girls' reading strategies (RQ3)

As illustrated in Figure 2, both genders demonstrated closely aligned strategy patterns across culturally familiar and unfamiliar texts. To determine whether these minor visual differences were statistically significant, a series of independent Welch t-tests was performed (Ravid, 2025). The tests compared boys' and girls' mean scores across Global, Support, and Problem-solving strategies as well as the overall SORS totals.

Girls reported significantly higher Global strategy use ($t(\approx198) = -2.56$, $p = .011$, $d = .31$) and higher overall SORS scores ($t(\approx198) = -2.29$, $p = .023$, $d = .32$) compared to boys (see Table 4). However, no significant gender differences emerged for Support or Problem-solving strategies, and no significant gender × text familiarity interactions were detected (all $p > .36$).

Table 4 Inferential Statistics and Gender × Text Familiarity Interaction for SORS Subscales

Comparison (test)	Test Type	t	df	p	Cohen's d	Interpretation
Global: Familiar vs Unfamiliar	Paired t	1.17	199	.243	—	No main effect of text familiarity
Global: Male vs Female	Independent (Welch) t	−2.56	≈198	.011	0.31	Females > Males (small effect)
Global: Interaction (diff by gender)	Independent t on difference	−0.44	≈198	.664	—	No gender × text interaction
Support: Familiar vs Unfamiliar	Paired t	0.00	199	1.000	—	No difference
Support: Male vs Female	Independent (Welch) t	0.25	≈198	.805	0.01	No gender difference
Support: Interaction	Independent t on difference	−0.36	≈198	.720	—	No interaction
Problem-solving: Familiar vs Unfamiliar	Paired t	−0.60	199	.551	—	No difference
Problem-solving: Male vs Female	Independent (Welch) t	−1.56	≈198	.120	0.22	No significant gender difference
Problem-solving: Interaction	Independent t on difference	−0.69	≈198	.490	—	No interaction
Total SORS: Familiar vs Unfamiliar	Paired t	0.43	199	.665	—	No difference
Total SORS: Male vs Female	Independent (Welch) t	−2.29	≈198	.023	0.32	Females > Males (small effect)
Total SORS: Interaction	Independent t on difference	−0.92	≈198	.360	—	No interaction

Note: Independent Welch t-tests compare boys vs girls. Paired t-tests compare familiar vs unfamiliar texts within each gender. Interaction tests examine gender differences in change scores (familiar minus unfamiliar). Cohen's d indicates effect size.

While girls demonstrated slightly greater global strategy use, both genders exhibited comparable patterns, and text familiarity did not alter this relationship, confirming the earlier descriptive trends.

Interaction Among Reading Strategies (RQ4)

Pearson's correlations were computed among the 30 SORS items and across the three subscales (Global, Support, and Problem-solving) to explore whether learners used multiple strategies in concert. Item-level correlations were near zero for both text types (familiar: $r = -0.001$; unfamiliar: $r = -0.005$), indicating largely independent use of strategies (see Table 5).

Table 5 Inter-strategy Correlation Summary for Familiar vs. Unfamiliar Texts

Text Type	Number of Items	Average Pearson R	Interpretation
Familiar Texts	30	−0.001	No Meaningful Association
Unfamiliar Texts	30	−0.005	No Meaningful Association

Note: Correlations are averaged across all unique pairs of SORS strategy items within each text type.

At the subscale level, moderate positive correlations ($r = .42–.61$) were found among Global, Support, and Problem-solving categories, suggesting that students who generally employ one strategy category may also use others to some extent, though not simultaneously. Hence, individual strategy use appears independent, with minimal orchestration across strategy types.

Summary of Results

The findings can be summarised as follows: (1) girls reported slightly higher overall and global strategy use than boys, though effect sizes were small (supporting H_1), (2) text familiarity exerted minimal influence on strategy use for both genders (partially supporting H_2), (3) No significant interaction between gender and text familiarity was found, suggesting convergence across groups (partially addressing H_3), (4) Inter-strategy correlations were near zero, indicating that students used reading strategies largely independently rather than in coordinated patterns (H_4 unsupported).

Overall, these results depict adolescent ESL learners as moderately strategic readers who employ a balanced but uncoordinated range of strategies across multicultural texts. The minor gender differences observed suggest subtle variations in metacognitive monitoring but no systematic influence of cultural familiarity.

Discussion

The discussion addresses the four research questions sequentially, interpreting the findings in relation to gender, text familiarity, and strategy interaction patterns within multicultural reading contexts.

Reading Strategies Predominantly Used by Boys

Analysis of boys' strategic reading revealed that Global, Support, and Problem-solving strategies were employed at moderately high levels across both culturally familiar and unfamiliar texts (M range = 2.99–3.05). Paired-samples t-tests indicated no meaningful effect of text familiarity (all $p > .05$), suggesting that boys' strategy use is largely consistent across cultural contexts. This consistency challenges assumptions in classic SRL models that learners naturally adjust their strategies according to task familiarity (Schunk & Zimmerman, 2023; Sweller, 2024). Unexpectedly, boys' problem-solving strategies slightly increased for unfamiliar texts, although not significantly, implying a possible compensatory adjustment when faced with less familiar content.

This finding diverges from schema theory (Wenying, 2022), which posits that cultural familiarity should activate prior knowledge and facilitate stronger engagement with texts. It also contrasts with studies reporting that cultural familiarity encourages richer strategy deployment (Espinoza & Strasser, 2020). Instead, the stability observed here confirms Ghimire and Mokhtari's (2025) observation that strategy use often reflects individual reader profiles rather than text-driven differences. In this study, learners maintained similar strategic patterns across culturally familiar and unfamiliar texts, indicating that their approach to reading was relatively stable regardless of content familiarity.

The results partially support H_1: girls reported slightly higher overall and Global strategy use than boys (Global $t(\approx 198) = -2.56$, $p = .011$, $d = 0.31$), but effect sizes were small. This aligns only partially with prior research, where stronger gender effects were often reported (Okyar, 2021). The negligible differences support the claim that gender effects on strategic reading are context-contingent (Espinoza & Strasser, 2020), and may be attenuated in multicultural reading settings where task demands override gendered tendencies.

Reading Strategies Predominantly Used by Girls

The results revealed that both boys and girls employed Global, Support, and Problem-solving strategies at moderate levels, with only small gender-based differences. Parallel trends in Figure 1 reinforce this finding, showing that both genders followed nearly identical strategic patterns across text types. Girls' consistently higher mean scores for Global and Total SORS strategies suggest slightly stronger metacognitive monitoring and planning, while boys' stable use of Support and Problem-solving strategies indicates comparable engagement in comprehension repair and regulation.

These results suggest that gender influences metacognitive awareness more than frequency or diversity of strategy use. This aligns with and Okyar (2021), who observed that females generally report greater metacognitive awareness, though effect sizes are typically small.

The parallel trends in Figure 2 reinforce this finding, visually demonstrating that both genders followed almost identical strategic patterns across culturally familiar and unfamiliar texts. Girls' consistently higher mean scores for Global and Total SORS strategies suggest slightly stronger metacognitive monitoring and planning (Pahrizal et al., 2025). In contrast, boys' stable use of Support and Problem-solving strategies indicates comparable engagement in comprehension repair and regulation.

Girls' strategic patterns were similarly consistent across culturally familiar and unfamiliar texts, with Global and Total SORS scores slightly higher than boys' (Total SORS $t(\approx 198) = -2.29$, $p = .023$, $d = 0.32$). The negligible differences between familiar and unfamiliar texts suggest that cultural familiarity alone may not be a sufficient trigger for differential strategy deployment. This contrasts with prior literature emphasising the motivational influence of familiar contexts on engagement (Espinoza & Strasser, 2020). Thus, girls' modest advantage appears confined to global monitoring, offering only partial support for H_2. The partial support for H_2 implies that girls' strategic advantage is modest and largely confined to global monitoring rather than all subscales.

The finding that girls generally outperform boys in Global strategies aligns with previous work highlighting females' greater metacognitive awareness and self-regulatory engagement (Okyar, 2021). However, the small effect sizes indicate that gendered patterns are subtle rather than decisive, supporting the argument that educational and social contexts moderate gender effects (Rezaei, 2025). This nuanced pattern suggests the need for contextually tailored, not generic, instructional responses (Syatriana et al., 2025).

Overall, the minimal variation observed between boys and girls numerically (Table 3) and visually (Figure 2) suggests that gender alone does not substantially differentiate reading strategy use in this context, corroborating Rianto (2021) and Wallace et al. (2021). Both groups demonstrated broadly similar patterns of metacognitive engagement when encountering multicultural texts, indicating a consistent approach to strategy use across genders within the sample.

Convergence and Divergence Across Genders

Difference scores comparing familiar versus unfamiliar texts showed minimal divergence between boys and girls across all subscales (Global, Support, Problem-solving), with all $p > .05$ and $d < .12$. Both genders displayed largely parallel patterns of strategy use, indicating convergence in the way adolescents engage with multicultural texts. The slight, non-significant increase in boys' problem-solving strategies hints at compensatory adjustments rather than true divergence.

This finding partially addresses H_3 and challenges assumptions from traditional SRL frameworks that boys would show greater gains in strategy use when presented with familiar contexts (Schunk & Zimmerman, 2023). The lack of divergence contrasts with findings from Sayed et al. (2025), where gender interacted with other variables to shape problem-solving strategies, and with (Okyar, 2021), who found significant gender gaps. In the present study, both male and female learners exhibited comparable patterns of strategy use across contexts, indicating a relative uniformity in metacognitive engagement. This uniformity reflects a stable strategy application pattern consistent across genders within the sampled group, suggesting limited differentiation in how male and female learners approach reading tasks in this context. These findings correspond to Rianto (2021) and Wallace et al. (2021), who report negligible differences in strategy use across gender.

Interaction Among Strategies

Contrary to H_4, inter-strategy correlations were essentially zero for both familiar ($r = -0.001$) and unfamiliar texts ($r = -0.005$), indicating that learners' strategy use is largely independent rather than coordinated. This independence contradicts theoretical expectations of integrated metacognitive orchestration (Schunk & Zimmerman, 2023; Sweller, 2024).

This result reinforces long-noted concerns that readers often possess strategies but fail to deploy them synergistically (Earspinoza & Strasser, 2020). The present study extends this insight by showing that even moderate strategy awareness does not ensure integration. Such fragmentation may limit comprehension effectiveness, reinforcing List et al's. (2024) argument for explicit orchestration training.

Pedagogically, this independence suggests that while students recognise multiple strategies, they lack metacognitive control to combine them effectively. This validates Sweller's (2024) view that high cognitive load in ESL reading can fragment strategic processing.

Overall Theoretical and Practical Implications

The present study refines SRL and culturally responsive reading frameworks by demonstrating that (a) gender differences are slight but consistent in global monitoring, (b) text familiarity exerts negligible influence, and (c) strategy use remains largely uncoordinated. By revealing convergence and fragmentation, it underscores the complexity of adolescent reading in multicultural ESL/EFL settings, as noted in global debates (Novita et al., 2023; Rezaei, 2025)

These findings contribute to SRL theory by emphasising that strategy orchestration cannot be assumed, even among experienced readers. Cultural distance may increase cognitive load in multicultural classrooms, diverting focus from metacognitive integration (Espinoza & Strasser, 2020; Sweller, 2024). This calls for SRL models to better account for partial or fragmented strategy application under authentic classroom conditions.

Practically, the results indicate that curriculum design and teacher training should prioritise explicit scaffolding of strategy integration, not just exposure to strategy lists. Teachers in resource-constrained contexts need support to design lessons that link Support and Problem-solving strategies with Global monitoring, as advocated by Syatriana et al. (2025).

Thus, this study exposes a pedagogical gap: learners know strategies but cannot coordinate them. This is inconsistent with the theoretically grounded GCSIF presented earlier. Awareness of reading strategies is insufficient for effective reading comprehension. Readers must coordinate and switch strategies according to the cognitive load imposed by various texts (Schunk & Zimmerman, 2023; Sweller, 2024). Addressing this through guided practice, reflection, and culturally diverse reading materials can enhance comprehension and intercultural competence.

Limitations and Directions for Future Research

Like all empirical studies, this research was subject to certain limitations that should be acknowledged when interpreting its findings.

1. The SORS captured self-reported rather than observed strategy use. Future studies should triangulate data with real-time protocols such as eye-tracking or think-alouds.
2. The sample from four Manzini schools limits generalisability; broader regional or cross-national replication is warranted.
3. Only narrative–descriptive texts were used; future work should include expository and argumentative genres.
4. The quantitative design cannot reveal underlying cognitive or affective processes; mixed-methods approaches are recommended.
5. Teacher and instructional influences were not examined; these should be integrated into future models of strategic reading.

Despite these limitations, the study contributes a valuable empirical foundation for understanding how gender, cultural familiarity, and instructional context shape reading strategy use in Sub-Saharan ESL classrooms.

CONCLUSION

This study provides a nuanced understanding of how adolescent ESL learners engage with multicultural texts. While girls exhibited a slight advantage in global and overall strategy use, both genders displayed similar patterns across support and problem-solving strategies. Text familiarity had minimal influence, indicating that learners approach familiar and unfamiliar texts with stable strategic routines.

A key insight is that strategy deployment occurred independently rather than in coordinated combinations, highlighting a gap between strategy knowledge and effective orchestration. This challenges assumptions in SRL and reading strategy models that learners naturally integrate strategies during comprehension tasks.

The findings refine SRL theory by specifying the conditions under which gender, cultural familiarity, and metacognitive control interact, and underscore the importance of instructional design and cultural exposure in shaping strategic reading.

The results emphasise the need for explicit, integrated strategy instruction. Teachers should guide learners in linking global, support, and problem-solving strategies, using culturally familiar and unfamiliar texts to foster flexibility, engagement, and cross-cultural understanding.

Overall, the study contributes empirically and pedagogically to adolescent literacy in multicultural ESL contexts, offering a foundation for future research and curriculum development to promote deeper comprehension and self-regulated learning.

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