Investigating the Challenges of Secondary Students in Reading Comprehension Skills in Bangladesh

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ABSTRACT

This study investigates an increasing concern about reading capabilities at the secondary level. The randomly selected 169 students from 7th grade students demonstrated moderate reading comprehension skills. Numerous students struggle to understand written texts and predict the outcome of a context, which affects their academic performance and cognitive development. Low reading comprehension is caused by limited access to diverse reading materials, lack of emphasis on reading comprehension in the curriculum and inadequate teacher training in reading skills development. Developing reading skills is further complicated by socioeconomic inequality and geographical location. This study emphasized the importance of improving secondary students' reading comprehension. Secondary education reforms require an evidence-based approach to improve reading comprehension. These might include curriculum improvements, policy development, teacher training, and varied, accessible reading resources. These interventions must also address socioeconomic inequality and language difficulties. In conclusion, this study illuminates secondary students' reading comprehension impediments. It urges educators, the government, and other stakeholders to collaborate in addressing this issue and ensuring that students acquire the necessary reading comprehension skills for academic achievement.

Keywords: reading, reading skills, reading challenges, reading comprehension

The acquisition of reading abilities is essential for learners to excel in all other areas of their education. The reason for this is that the process of learning heavily relies on the act of reading and the meaningful absorption of written materials. Engaging in the activity of reading improves the cultivation of self-assurance and enhances cognitive abilities, such as critical thinking and analysis, improving memory retention. The act of reading contributes to the enhancement of learners' vocabulary and writing abilities. However, it is worth noting that learners who engage in independent reading may not fully grasp the significance of this activity without proper instruction (Ekeh et al., 2023). Reading comprehension refers to the cognitive skill of engaging with written material, effectively processing its content, and comprehending its intended meaning. The capacity of an individual to grasp written material is impacted by their personal characteristics and cognitive abilities, including the aptitude for making inferences. When faced with challenges in word recognition, students may allocate a significant portion of their cognitive resources into deciphering particular words, so impeding their capacity to comprehend the text at issue. There exists various process for enhancing reading comprehension, encompassing the enhancement of vocabulary and the adoption of effective reading practices (Wolley, 2015). The proficiency to interpret and understand written material is a fundamental aptitude crucial for achieving academic excellence,

and serves as an indispensable element of the educational process. Reading comprehension encompasses the cognitive capacity to comprehend written text, interpret its intended significance, and draw logical inferences (Hapipi et al., 2021). Reading comprehension refers to the cognitive process by which individuals generate and extract meaning from written text through active interaction and engagement. The efficacy of a comprehension experience is contingent upon the alignment of reader aptitude, text complexity, and task delineation. Proficiency in language and possession of relevant prior information are of paramount significance for readers (Snow, 2010). The process of comprehending written text involves multiple dimensions and is characterized by its complexity. The ongoing issues experienced by individuals of various age groups, including children, adolescents, and adults, in regards to reading comprehension necessitate collaborative endeavors to create evaluations that can effectively pinpoint the root causes of these challenges. Additionally, it is crucial to establish instructional strategies that can either prevent or alleviate these difficulties (Kendeou et al., 2016).

Inadequate performance in reading comprehension among secondary students in Bangladesh

In the context of numerous public examinations in Bangladesh, a discernible trend emerges wherein a significant number of students experience failure or subpar performance in the language-based subjects. This can be attributed to a dearth of reading skills among these pupils. Furthermore, other evaluation test reports have revealed even more unfavorable outcomes. The pass percentage of the Secondary School Certificate (SSC) has reached its lowest point in a span of 13 years. A well-regarded digital news outlet emphasized the inadequate results in language testing and the limited accomplishments in the humanities domain. The pass rate among candidates who sat the tests conducted by the education boards of Rajshahi, Dhaka, Chattogram, Jashore, Dinajpur, and Sylhet, as well as those who appeared for the corresponding Technical and Madrasa board examinations, has experienced an overall decrease (Siddiqui, 2023).

According to the report conducted by the Learning Assessment of Secondary Education Quality and Access Enhancement Project (SEQAEP) Institutions in 2012, it was found that 44 percent of Grade 9 students demonstrated reading competencies in the upper bands (4, 5) in the subject of Bengali. Approximately 15% of students possess a band 5 level of competency, indicating an improved level of reading aptitude and a comprehensive understanding of the subject material. Additionally, it is reasonable that they possess all of the talents associated with the lower band. A total of 24% of the student population obtained a band 3 or lower. They possess an understanding of using language correctly, yet without a high level of proficiency (DSHE, 2012).

A further report from the 2013 Learning Assessment of SEQAEP Institutions reveals that 11 percent of class 6 students in the higher band (4, 5) and 49 percent of class 8 students achieved reading competency in Bengali reading. A brief proportion (1 percent) the sixth grade and (11 percent) band 5 abilities were demonstrated by class eight. A total of 32 percent of grade 6 pupils and 38 percent of grade 8 students exhibited skills below the proficiency level of band 4 (DSHE, 2013).

Furthermore, it was discovered in the Learning Assessment of Secondary Institutions report for the year 2015 that 34 percent and 54 percent of pupils attained reading abilities at the higher band levels (5 and 6) in class 6 and class 8, respectively. In the study, it was found that 10% of grade 6 pupils and 22% of grade 8 students achieved a band 6 or above, surpassing the national average for these respective grade levels. Students possess the capacity to integrate knowledge in order to reach logical deductions, evaluate the viewpoints of two writers within extensive persuasive texts, and formulate reasonably intricate inferences, such as discerning a character's motivations within a narrative text (DSHE, 2015).

The aforementioned data indicates that a significant percentage of pupils are experiencing inadequate performance in the field of reading. A minority of pupils demonstrated proficiency in the higher performance category. Therefore, it may be inferred that a significant majority of pupils in Bangladesh are experiencing difficulties in achieving high scores in reading proficiency. In the context of Bangladesh, the issue of poor academic performance among students has emerged as a primary concern for the government, educators, and the public at large, given the considerable progress made in terms of access, equity, and achievement in public examinations (Ahmed et al., 2006). It is widely believed that reading difficulties serve as the key factor contributing to students' unsatisfactory academic achievement across many areas in education (Nicolas & Emata, 2018). Therefore, the process of reading is an essential requirement for enhancing students' skills and academic achievements. The importance of including reading activities in the school setting is closely linked to achieving academic success across various disciplines, including mathematics, science, and arts (Gomez et al., 2020).

Reading comprehension skills and beyond the challenges

The ability to read is a crucial skill that holds significant importance in a student's academic achievements and personal improvement. In the context of secondary education, it is anticipated that students will engage in the task of reading and comprehending intricate texts covering a multitude of academic disciplines. Nevertheless, a

significant number of students encounter obstacles that impede their ability to read proficiently (Setiorini et al., 2022). It is imperative for educators to possess a comprehensive awareness of the reading process and the inherent tactics employed by pupils in order to effectively facilitate learning (Pranata, 2019). The primary issue faced by those engaged in reading is the development of effective ways for acquiring knowledge of unfamiliar vocabulary. The consequences of this strategy are widely recognized (Muthuchamy, 2019). The issue of sustaining students' motivation and engagement with reading holds considerable importance within the scope of secondary school. The significance of intrinsic motivation in relation to reading improvement (Erickson & Fornauf, 2019). The reading ability of pupils is frequently compromised when they experience a lack of enthusiasm. To solve this difficulty, it is recommended to implement approaches such as evidence-based reading and promoting a reading culture inside educational institutions (Mujan Yusuf et al., 2019). Secondary-level students are obligated to engage in interdisciplinary reading, necessitating the utilization of diverse reading strategies across multiple courses. The imperative of disciplinary literacy, it is crucial to impart to pupils the skills necessary for effectively reading and comprehending specific texts within various academic domains such as physics, history, mathematics, and other courses. This technique aims to tackle the difficulty of effectively adapting reading abilities to various content areas (Fang, 2020). The reading achievement of individuals is substantially influenced by their socioeconomic level. Individuals from socioeconomically deprived situations frequently encounter restricted opportunities to obtain reading materials, which can impede their ability to develop proficient reading abilities. To rectify these inequities, it is imperative to implement focused interventions and establish robust support (Goldfeld et al., 2021; Romeo et al., 2022). Students encounter several obstacles in their reading journey at the secondary level, encompassing issues such as limited vocabulary, struggles with understanding, and a lack of enthusiasm. In order to tackle these issues, it is imperative for educators and policymakers to use evidence-based approaches that incorporate several aspects such as vocabulary development, strategies for comprehension, academic literacy, and motivation-building approaches. Moreover, it is crucial to emphasize the critical nature of addressing socioeconomic disparities in order to improve reading competency at the secondary level (Butler et al., 2021).

Synthesis of literature and research gap

While Bangladesh has made commendable steps in educational access and equity, a "comprehension crisis" persists at the secondary level. Public examination data reveals a disturbing trend: despite high enrollment, pass rates in language-based subjects have recently hit a 13-year low, signaling a systemic failure in developing functional literacy skills (Ahmed et al., 2006). Longitudinal data from the Learning Assessment of Secondary Education Quality and Access Enhancement Project (SEQAEP) reinforces this concern. Between 2012 and 2015, reports consistently showed that while a moderate proportion of students achieved basic competencies (Band 3), a significantly smaller percentage reached the higher proficiency bands (Bands 4–6) required for critical analysis. For instance, in 2013, only 11% of grade 6 students demonstrated advanced reading competencies.

Although global literature highlights the pivotal roles of intrinsic motivation and disciplinary literacy in addressing these deficits, there remains a critical research gap within the Bangladeshi context (DSHE, 2013, 2015). Existing studies often provide aggregate performance data but fail to diagnose specific cognitive bottlenecks—such as the inability to "predict outcomes" or "draw conclusions." This study addresses this gap by conducting a granular diagnostic of these specific reading sub-skills among 7th-grade students, identifying precisely where the transition from rote memorization to higher-order comprehension breaks down.

Theoretical framework

This study is grounded in the "Interactive Model of Reading," which posits that reading comprehension is not a unidirectional process but a dynamic interaction between "bottom-up" linguistic processing (e.g., decoding, vocabulary) and "top-down" conceptual processing (e.g., prior knowledge, inference) (Stanovich, 1984). Within this model, vocabulary knowledge acts as a critical linguistic bridge; without proficient vocabulary, readers cannot effectively transition from decoding words to constructing meaning. Furthermore, the study integrates a socio-cultural perspective on literacy, acknowledging that reading proficiency is deeply embedded in the learner's environment (Skerrett, 2020).

This framework links socio-economic status and geographical location (urban vs. rural) to reading outcomes, suggesting that literacy attainment is often constrained by unequal access to "literacy capital" such as diverse reading materials and quality pedagogy (Comber, 2017). By synthesizing these perspectives, this study moves beyond simple performance metrics to examine how cognitive sub-skills (e.g., predicting outcomes, analyzing) are influenced by the interplay of individual motivation and external environmental factors.

Objective of the study

To investigate reading skills comprehension level competence among secondary students in Bangladesh.

Hypothesis

Researchers formulated two tentative null hypotheses. If the null hypothesis were rejected, findings would refer to as the inverse results.

H1: There are no significant differences between male and female students reading comprehension performance at secondary level in Bangladesh.

H2: There are no significant differences between urban and rural students reading comprehension performance at secondary level in Bangladesh.

RESEARCH METHODOLOGY

This study mainly conducted quantitative approach. The researchers explored reading comprehension level of secondary students in Bangladesh. The study utilized a simple random sampling procedure to select a sample of 169 student respondents from six schools, which includes grade seven students from Rajshahi. By using a simple random sampling procedure within the schools, the study was minimize selection bias. This was ensure that the 169 respondents accurately reflect the proficiency spectrum of the sampled institutions. The selection was conducted with a 95% confidence level and a margin of error at .05 level. Researchers selected simple random sampling due to its ability to assure representation, produce neutral estimates, enable generalization, enhance transparency, and establish the basis for statistical inference in the present investigation. The development of the reading performance test questionnaire involved the creation of a set of 25 multiple-choice items specifically designed for Bengali subjects in seventh grade. This questionnaire was prepared in accordance with the national assessment system established by the National Curriculum and Textbook Board (NCTB), which associate with the Ministry of Education (MoE) (NCTB, 2012). The test components have been contextualized using the Programme for International Student Assessment (PISA) and the Australian Council for Educational Research (ACER) questionnaire, which had been previously utilized in the learning assessment of secondary institutions in Bangladesh (DSHE, 2015). The investigation questionnaire encompassed the domains of higher and lower-order according to Bloom's taxonomy. The administered questionnaire on reading skills encompassed five distinct reading skills, contextual vocabulary comprehension, primary concept identification, inference generation, consequence prediction, and draw conclusion. (Imam, 2016). The reading comprehension level is categorized based on percentage scores, with 20% indicating a very low level, 40% indicating a poor level, 60% indicating a moderate level, 80% indicating a high level, and scores above 80% indicating an outstanding level of reading proficiency (DSHE, 2012, 2013, 2015). In piloting phase questionnaire have shown Cronbach Alphas above 0.80. From responded sample data Test Reliability Coefficients (Cronbach Alphas) for reading comprehension performance test questions is o.80. Researchers utilize descriptive statistics to illustrate the levels of reading comprehension skills and learning domains among secondary pupils (Forehand, 2010). Then, an independent sample t test was used to compare mean of reading comprehension scores basis of gender and geographical representation of the students to see the disparities rural and urban area.

Reading comprehension skills

The reading comprehension of secondary (Table 1) students was measured using five reading skills that have been utilized by academicians in their scholarly works (Imam, 2016; Imam et al., 2013).

Ethical consideration

The study was conducted in accordance with the Declaration of Helsinki and all participants gave their informed consent for inclusion before they participated in the study (World Medical Association, 2013). The study was conducted in accordance with ethical standards for research involving minors. Permission was obtained from school authorities, and informed consent was secured from both the participants and their guardians. Participation was voluntary, and the anonymity of the respondents was preserved throughout the data collection and analysis process.

Table 1
Indicators

Indicators	Explanation of indicators
Understanding vocabulary in context	In order to comprehend the significance of a word that is unfamiliar, one should employ the contextual cues provided by the surrounding text or discourse. The vocabulary in a given context can be categorized into four distinct types: illustrative instances, words with similar meanings, words with opposite meanings, and the overall meaning conveyed by the passage.
Identifying main ideas	In order to ascertain the primary concept, what is conveyed regarding the individual, entity, or concept inside a given textual composition? The identification of the central theme is of utmost importance in order to fully understand a written piece. In both paragraphs and articles, the central concept serves as the unifying thread that unites all the sentences. The central thesis is further strengthened by the supporting evidence presented in the text.
Making inferences	The process of making inferences involves utilizing existing knowledge to make reasonable inferences or draw conclusions about information that is not explicitly stated, often requiring the ability to read between the lines. Inference readers employ textual cues and draw upon their personal experiences to discern implicit information, so integrating the text with a sense of personalization and memorability.
Predicting outcomes	Based on the pre-existing knowledge possessed by learners, they engage in the process of making predictions regarding the subsequent events or developments that are likely to unfold inside the text. Learners are encouraged to engage in active inquiry by posing questions and engaging in forward-thinking through the process of formulating predictions. Consequently, learners are able to enhance their comprehension of the narrative, establish a deeper connection with it, and engage in interactive experiences while engaging in the act of reading.
Drawing conclusion	The act of drawing inferences involves the utilization of implicit or inferred information in order to derive meaning from elements that are not explicitly expressed within a given text. Authors employ numerous literary techniques to quietly convey information to readers, enabling them to discern implicit meanings that may not be overtly articulated within the text.

RESULTS AND DISCUSSION

Table 2 shows the average reading comprehension proficiency exhibited by secondary school students of grade 7th. Students (N=169) obtain minimum 5 and maximum 24 marks out of 25 marks in reading comprehension performance test. The mean score of secondary students M=16.10 and standard deviation is SD=4.15. The student reading comprehension level of the measures of dispersion between 11.95 to 20.25 which indicate that most of the students fails to achieve highest score in reading comprehension performance test and a maximum number of the students under satisfactory level. Students of the secondary level demonstrate moderate reading comprehension level.

Table 2
Overall reading comprehension level of secondary students

	N	Minimum	Maximum	Mean	Std. Deviation	Reading level
Reading comprehension	169	5	24	16.10	4.15	Moderate (64.4%)

Secondary school students encounter progressively intricate and subject-specific literature, presenting a notable obstacle to their understanding abilities (Butler et al., 2021). The insufficient range of vocabulary and linguistic proficiency can impede pupils' capacity to comprehend and analyze texts proficiently (Goldstein et al., 2018). During the period of teenage years, individuals are in the process of cognitive development, which might impact their ability to comprehend and interact with complex and abstract ideas presented in written materials (Hurst & Griffity, 2015). Multicultural and intercultural research within applied linguistics highlights how linguistic and cultural diversity in educational contexts adds layers of complexity to students' language comprehension and learning, particularly when students encounter texts embedded in diverse sociocultural meanings (Artanti & Azhari, 2025). Encouraging the involvement of secondary students in reading and actively interacting with texts can pose a challenge, especially considering the many conflicts of interest and obstacles they encounter (Bojadjievska, 2019). There are several factors that have been identified as influential in the development of reading comprehension skills. These factors can be categorized into three main areas: individual factors, instructional factors, and environmental factors. Individual factors refer to the implementation of effective reading instruction, which encompasses several tactics such as active reading, summarization, and question production, has the potential to enhance comprehension abilities (Kendeou et al., 2020). The instructional factors state the teachers that possess a supportive and well-informed character, and are capable of offering assistance and constructive comments in the context of reading, can exert a substantial influence on

students' aptitude for reading comprehension (Setiorini et al., 2022).Particularly through language-aware scaffolding practices and teacher professional development that support students' engagement with subject-specific texts (Smit et al., 2023). Sustained professional development for language teachers has also been shown to strengthen pedagogical practices that support learners' engagement with complex academic texts (Webb, 2026). Environmental factors refer to the provision of a wide range of varied and suitable reading materials has the potential to augment students' exposure to various kinds and types of texts, thus leading to an enhancement in their understanding abilities. Also, the home environment, including parental involvement and support, is crucial in cultivating a culture that promotes reading and comprehension skills. The incorporation of technology, namely electronic books and online resources, has the potential to effectively captivate and stimulate pupils, thereby fostering the development and improvement of their reading abilities (Igbaria & NidaArraf, 2020).

Table 3

Reading comprehension skills scores among grade 7th students

	N	Minimum	Maximum	Mean	Std. Deviation	Reading level
Understanding vocabulary in context	169	1	7	5.30	1.47	Moderate (75.71%)
Identifying main ideas	169	0	3	1.72	.83	Low (57.33%)
Making inferences	169	0	7	4.25	1.63	Moderate (60.71%)
Predicting outcomes	169	0	5	2.82	1.03	Low (56.40%)
Drawing conclusion	169	0	3	2.02	.942	Moderate (67.33%)

Table 3 demonstrates reading comprehension skills scores among secondary level students. Students (N=169) obtain minimum 0 and maximum 7 scores among five reading comprehension skills where highest scores allocated for skills understanding vocabulary in context and making inferences is 7 and lowest scores for making inferences and drawing conclusion is 3. Students of secondary level obtain high scores (M=5.30, SD= 1.47) in understanding vocabulary in context skill and lowest scores (M= 2.82, SD= 1.03) in predicting outcomes skill.

Vocabulary proficiency is widely recognized as a significant determinant of reading comprehension in the field of language acquisition. The development of vocabulary knowledge is widely recognized as a fundamental component within the broader process of learning. Learners often come across numerous unfamiliar words while reading, which can be attributed to their limited understanding of the fundamental aspects of the reading comprehension. In this context, the student may encounter challenges in their understanding of the content they are reading (Susanto, 2018). Language literacies, including the interpretation of language artifacts and affective engagement with texts, play a central role in learners' ability to make meaning from complex inputs (Deiri, 2025). The comprehension of written text relies on the identification and understanding of the main idea and the ability to summarize its content. The analysis of student performance on two consecutive years of state-mandated standardized reading examinations reveals a statistically significant lower in scores between main idea and summary questions compared to other question categories (Wijekumar et al., 2020).The process of comprehending written text is a very intricate task that relies on several cognitive and metacognitive abilities, with inference skills being particularly important. The findings suggest that proficient readers employed a diverse range of inference abilities, effectively integrating local and global inferences, and actively assessing their understanding during the reading process. In contrast, readers who were less successful predominantly relied on local inferences rather than actively evaluating their comprehension. Consequently, this approach led to lower marks on the reading comprehension test (Savić, 2018). Engagement with texts through reflective and context-sensitive reading practices has also been shown to support deeper meaning-making in reading processes (Irni, 2017). The study evaluated the reading comprehension abilities of eleventh-grade pupils and discovered that 70% had exceptional literal understanding, 55% exhibited satisfactory inferential comprehension, and 42% displayed fair critical-evaluative comprehension (Joy Munsod-Fernandez, 2021). Reading comprehension is the cognitive ability to engage with written material, comprehend its meaning, and integrate it with the reader's existing knowledge. Text comprehension refers to the degree of understanding attained regarding a specific portion of written or verbal communication. The ability of an individual to read text is influenced by their aptitudes and their capacity to process information in order to derive conclusions (Bosque et al., 2018). Research on artificial intelligence in education also identifies the role of adaptive feedback and AI-supported multiliteracy learning practices in improving learner engagement and processing of complex written content (Acar et al., 2025).

Table 4 displays reading comprehension cognitive domain scores among secondary level students. Students (N=169) obtain minimum 0 and maximum 7 scores among four reading comprehension cognitive sub-domains where highest scores allocated for application sub-domain is 7 and lowest scores for rest of others sub-domains

is 6. Students of secondary level obtain high scores (M=4.65, SD= 1.44) in remember sub-domain and lowest scores (M= 3.33, SD= 1.33) in analyze sub-domain.

Table 4

Domain scores of seventh-grade students at the secondary level

	N	Minimum	Maximum	Mean	Std. Deviation	Reading level
Remember	169	1	6	4.65	1.44	Moderate (77.5%)
Understanding	169	0	6	3.78	1.34	Moderate (63%)
Application	169	1	7	4.34	1.52	Moderate (62%)
Analyze	169	0	6	3.33	1.33	Low (55.5%)

An investigation indicates that the ability to engage in higher-order cognitive processes, such as inferencing, applying, analyzing and planning/organizing, plays a crucial role in the comprehension of more intricate textual materials (Eason et al., 2012). Reading is a cognitive ability that involves a multifaceted and intricate variety of processes, which rely on constructing an intellectual structure of a provided text. This study examines the relationship between distinct domains and reading abilities in order to explain text comprehension across a population of secondary school students. The findings indicate that pupils tend to demonstrate stronger proficiency in lower order domains compared to higher order domains in reading (Abusamra et al., 2020).

Table 5 presents the findings of an independent samples t-test analysis, which was conducted to compare the average reading comprehension scores of male students (n=84) and female students (n=85) at secondary level. The Shapiro-Wilk statistics yielded non-significant results, indicating that the premise of normality was not violated. The results of Levene's test were not statistically significant, indicating that there is evidence to suggest that the variances of both groups significantly equal. The result of the t-test is statistical significance. Precisely, the mean reading comprehension score of females (M=17.01, SD=3.30) is found to be higher (mean difference 1.83, 95%, confidence interval lower 0.52, upper 3.14) compared to males (M= 15.18, SD=5.17). The t-value (169) is 2.75, with a p-value lower than 0.05, indicating statistical significance. The effect size, as measured by Hedges's gs, is 0.42. The impact size of the common language (CL) suggests that, when considering a random pair of female students, there exists a 61% possibility that the female participant will exhibit a better level of reading comprehension compared to the male participant. The t-value of 2.75 is greater than the critical t-value of 1.98 at a significance level of .05. Based on the analysis, it can be concluded that female students have significant and higher reading capability than male students. Therefore, the hypothesis H1 of the study has been rejected.

Table 5

Reading comprehension level between male and female students

	Sex	N	Mean	Std. Deviation	t
Reading comprehension	Male	84	15.18	5.17	2.75
	Female	85	17.01	3.30	

The research findings indicate that female students had superior performance in the domain of reading literacy compared to their male counterparts (Tiarina et al., 2022). Additionally, it was discovered that females exhibited a greater tendency to employ reading comprehension strategies in comparison to males (Denton et al., 2015). However, a study discovered that there was no statistically significant disparity between genders in the way secondary school students perceive reading comprehension (Osikomaiya, 2021).

Table 6 shows the results of an independent samples t-test comparing secondary urban schools' students (n=104) and rural schools' students (n=65) reading comprehension scores. The Shapiro-Wilk values were non-significant, confirming normality of the test. Since Levene's test was not statistically significant, both groups' variances appear to be equal. The t-test shows statistical significance. The mean of the reading comprehension scores of urban students (M=17.36, SD=4.00) is higher than rural students (M= 14.10, SD=4.32) where mean difference 3.26, 95%, confidence interval lower 1.97, upper 4.55. The t-value (169) is 4.99, with p-value below 0.05, showing statistical significance. According to Hedges' gs, the effect size is 0.78. The impact size of the common language (CL) predicts that a random pair of urban students will have a 71% chance of having superior reading comprehension than the rural students. The t-value of 4.99 exceeds the critical t-value of 1.98 at.05 significant level. The analysis shows that urban students reading comprehension is significantly better than rural students. Thus, hypothesis H2 is rejected.

Table 6

Urban and Rural Students reading comprehension level

	School	N	Mean	Std. Deviation	t
Reading comprehension	Urban	104	17.36	4.00	4.99
	Rural	65	14.10	4.32	

An investigation indicates notable disparities in reading comprehension abilities between students residing in urban and rural areas. Urban students demonstrate a higher level of proficiency in reading compared to their rural counterparts (Cho et al., 2015). Peer relationship dynamics and ecological contexts within school communities can influence students' engagement and academic performance across diverse settings, contributing to differences in literacy outcomes such as reading comprehension (Leo et al., 2022). From the program for international student assessment study, there exists a disparity in reading comprehension levels among secondary school students, specifically between those attending urban schools and those attending rural schools. The reading comprehension levels of students in urban schools mostly showed high (Fredriksson, 2013). However, a limited number of studies have indicated that there is not a significant disparity in reading comprehension performance between students from urban and rural locations. (Acharya, 2015). A study suggested that, there is a compelling demand to devise and execute more effective strategies aimed at enhancing the reading comprehension skills of school-age students, specifically lower socioeconomic backgrounds (Lucariello et al., 2012).

Limitation of the study

Although this study utilizes a simple random sampling strategy within a certain region and schools, it is important to note that the findings may not be fully representative of the entire population of secondary level students in Bangladesh. If a multi-stage sampling technique were utilized, the resultant sample might potentially provide an effective representation of the entire secondary-level population in Bangladesh. The reading performance of students may be influenced by various external factors, such as socioeconomic status, the quality of the home environment, the efficacy of educators, and the accessibility of resources inside the educational institution. The inclusion of all these components in this study may be an important challenge in terms of control or accounting. In Bangladesh, the secondary school system encompasses the academic years from sixth grade to tenth grade. This inquiry exclusively focuses on students in the 7th grade. It is advisable to conduct further research on each class representation.

Research implications

Educational policy: The present investigation revealed a moderate reading comprehension of the secondary student. The progress made in the formulation and implementation of educational policies in Bangladesh is noteworthy. Policymakers may consider the adoption of reading comprehension programs and initiatives as a strategy to improve students' overall academic performance. Curriculum development: The educational curriculum for secondary education in Bangladesh lays considerable importance on the development of reading proficiency in subjects that are language-based, particularly Bengali. The primary focus should be on study findings that indicate a positive correlation between reading comprehension and academic success in secondary school. When developing a curriculum, it is crucial for curriculum developers to give careful thought to the importance of reading comprehension. Teacher training: Educational institutions may derive potential advantages by prioritizing the training of teachers in the integration of reading comprehension abilities. The aforementioned concentration holds the capacity to enhance academic achievement among students in secondary education. Cross-disciplinary approaches: This study presents a valuable opportunity to promote interdisciplinary collaboration between educators and researchers, emphasizing the importance of integrating reading skills into students' academic advancement. Long-term impact: The implementation of extended monitoring of students' progress has the capacity to unveil the long-term consequences of improving reading comprehension abilities, as well as the reciprocal influence, providing valuable insights for educational administrations.

CONCLUSION

The investigation revealed that the reading comprehension abilities of secondary students are at a moderate level in Bangladesh. The aim of this study was to examine the reading comprehension abilities of secondary school students. The reading comprehension abilities of students were found to be lacking in the areas of literal understanding, inference, outcome prediction, and critical reflection. The findings revealed a range of reading comprehension levels among students at the secondary level, spanning from low to high proficiency across several reading skills and domains. Additionally, the study revealed the influence of socioeconomic disparities on students reading comprehension. The most important thing is for educators, government entities, and other relevant stakeholders to engage in collaborative efforts aimed at tackling this matter and ensuring that students acquire the necessary reading comprehension abilities essential for academic and future success. Understanding the various individual characteristics that exert an influence on reading comprehension, including however limited to prior knowledge, motivation, and socio-economic background, is of the utmost importance in order to customize interventions. The present study established an essential basis for further inquiry into the aspects that

contribute to difficulties in reading comprehension among secondary school students, as well as the suggest of empirically-supported approaches to mitigate these challenges.

Ethical statement

This study was conducted in accordance with the ethical principles of the Declaration of Helsinki (2013) for research involving human participants. Ethical approval was obtained from the Institute of Education & Research, University of Rajshahi, Bangladesh. Permission was granted by the respective school authorities prior to data collection. Informed consent was obtained from all participating students and their legal guardians. Participation was voluntary, and the anonymity and confidentiality of all participants were strictly maintained throughout the research process.

Competing interests

The authors of this study declare no conflicts of interest pertaining to their authorship.

Author contributions

The authors jointly conceptualized the study and developed the theoretical framework. Monjurul Islam conducted the primary data analysis and drafted the manuscript. Happy Kumar Das contributed to refining the research design, strengthening the theoretical framework, and supervising the study. Sumaiya Akter and Md. Delowar Hossain assisted in the literature review, instrument administration, and data collection from participating schools. All authors reviewed and approved the final version of the manuscript.

Data availability

The datasets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request. Due to ethical considerations and the protection of participants' privacy, the data are not publicly available.

AI disclosure

Throughout the process of preparing this work, the author(s) employed the use of QuillBot and Grammarly tools in order to improve the linguistic clarity. Following this, the author conducted an in-depth investigation and made required revisions to the content, assuming complete accountability for the ultimate release.

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