Post-pandemic barriers to inferential and critical reading: a mixed-methods study

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Article Info

ABSTRACT

The Program for International Student Assessment (PISA) 2018 and 2022 results expose the alarming problem in the Philippines' reading comprehension, a situation worsened by pandemic-related disruptions. This study investigates the specific reading comprehension skills where students struggle most and the factors contributing to these difficulties in a post-pandemic context. Using an explanatory sequential design, the researchers conducted reading assessments for the 30 grade 7 students, followed by interviews with 12 students and 5 teachers selected through purposive sampling. Descriptive statistics indicated that students faced the most challenges with inferential and critical-level skills, highlighting gaps in higher-order thinking. Thematic analysis identified contributing factors, including lack of reading engagement, lack of linguistic competence, remote learning repercussions, challenges from screen dependency, and environmental influences. These challenges highlight the long-term impact of the pandemic on reading development. To address this, the educational system must strengthen teacher training in reading instruction to promote active student engagement. Educators are encouraged to develop age- and interest-appropriate reading materials, use technology in reading instruction, and foster collaboration between schools, communities, and families. Targeted interventions are essential to rebuild and enhance students' reading comprehension skills, ensuring they can meet the demands of higher-order thinking in a post-pandemic world.

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1. INTRODUCTION

Developing reading comprehension skills among children is a global core goal of education systems, as these skills are critical to individual cognitive development, lifelong learning, and employability [1]. By strengthening the capacity of individuals to participate meaningfully in the knowledge economy, reading comprehension contributes to the accumulation of human capital, thereby supporting sustained national economic growth. Despite this well-established connection between reading proficiency, educational achievement, and economic development, the Philippines still faces significant literacy challenges. The severity of this issue is evident in the 2018 Program for International Student Assessment (PISA) results [2] and the more recent 2022 findings [3], where the Philippines ranked 76th out of 81 participating countries. This issue highlights a critical literacy gap that requires immediate attention, particularly in today's fast-paced digital age, where critical thinking is essential for navigating a complex informational and technological landscape [4]. Without immediate action, the inability to equip students with these foundational

skills risks widening socio-economic disparities and hindering national progress in an era where advanced literacy is more crucial than ever for personal success and societal resilience.

Influential factors behind this problem include long-standing systemic issues within the education sector and the widespread disruptions caused by the COVID-19 pandemic, which worsened learning disparities and slowed efforts to resolve them. However, reading comprehension difficulties have persisted even before the pandemic [2]. The COVID-19-related school closures only intensified the problem, with global studies indicating a decline in reading comprehension performance as a direct consequence of the crisis. This decline stemmed from the poor quality of learning during the pandemic, which led to delays in acquiring foundational reading skills. For instance, a study on Brazilian students found that second- to fourth-graders exhibited reading comprehension and fluency delays equivalent to nearly one year of lost learning compared to pre-pandemic cohorts [5]. More than 2 years of distance learning in the Philippines further exacerbated the learning crisis, deepening educational gaps.

In a smaller scope, students' reading comprehension abilities, especially grade 7 students, were worsened by the COVID-19 pandemic because primary schools were vulnerable to the disruptions of the pandemic [6]. The local teachers have observed a discernible decline in their reading comprehension skills, which led them to coin the term "pandemic learners" to describe those struggling to understand Filipino and, more critically, English texts. As a result, many high school students today, despite growing up in the digital age, continue to face deficits in advanced reading comprehension skills, hindering their ability to engage with complex information critically, adapt to technological advancements, and succeed in an increasingly knowledge-driven world.

While numerous studies have examined learners' reading comprehension performance before and during the pandemic, the post-pandemic landscape remains an underexplored area. The current educational context introduces new dynamics, including the increasing integration of technology in learning environments [7] and the persistent learning gaps resulting from disrupted instruction [8]. This study investigates students' reading comprehension difficulties and the underlying factors contributing to these challenges within the post-pandemic educational setting. Specifically, it aims to answer the following research questions:
i)   Which reading comprehension levels do students struggle with the most?
ii)   What factors contribute to these difficulties as perceived by students and teachers?
iii) What actionable recommendations can be drawn from the findings to address these challenges?

This study emphasizes the unique influences of the post-pandemic environment, including shifts in student behavior and the accelerating adoption of technology, on the development of students' reading comprehension. These factors have been largely overlooked in prior research. By examining these emerging conditions, the study highlights the critical and ongoing need to strengthen reading comprehension skills in a digital era where analyzing, interpreting, and engaging with information are vital for academic success, informed decision-making, and future employability. Overall, this study timely explores how post-pandemic educational realities shape comprehension challenges, and its goal is to provide actionable insights that can inform targeted interventions, curriculum redesign, and education policy reform.

2. METHOD

2.1. Research design

This study employed a mixed-method approach, following an explanatory sequential design [9] to address the research questions. For the quantitative approach, the study used a descriptive statistics design to identify the areas of reading comprehension that students struggled with the most. For the qualitative approach, the study used a single-case study design to uncover the potential causes behind the identified reading comprehension difficulties.

2.2. Research participants

The quantitative phase had a sample of 30 grade 7 students. Sample size determination should consider the study's objective and design [10]. As this study is small-scale and descriptive, a sample of 30 participants is sufficient for exploring the patterns and characteristics relevant to the research questions. It also meets the commonly accepted minimum threshold for generating statistically meaningful insights in quantitative descriptive studies while remaining feasible within the survey scope [10]. Moreover, these students were the ideal choice because they encountered reading comprehension problems, as observed by teachers, and they came from elementary schools that were vulnerable to the disruptions of the pandemic. Moreover, the study employed a purposive sampling procedure to select students intentionally. The researchers selected them through inclusion criteria: i) current enrollment in grade 7; ii) willingness to actively participate in assessments and interviews; and iii) consent from guardians.

The qualitative phase had a sample of 12 students and 5 English teachers. It has been suggested that 12–20 participants are typically enough to reach data saturation in qualitative studies [11]. Similarly, the study employed a purposive sampling procedure based on the inclusion criteria. For student participants, the requirements included participation in the quantitative phase, interview availability, and consent from teachers or guardians. For teacher participants, the criteria included current assignment to grade 7 sections, interview availability, and provision of consent.

2.3. Research instrument

The study employed standardized reading comprehension assessments for the quantitative phase to ensure reliable and contextually relevant evaluation. The researchers adapted assessments from DepEd's Philippine Informal Reading Inventory (Phil-IRI), which aligns with national literacy standards, and from State of Texas Assessments of Academic Readiness (STAAR), an internationally benchmarked reading evaluation. To ensure the accuracy and reliability of the assessment tool, it underwent a rigorous validation process conducted by three experts with doctorate degrees and published research in prestigious journals. Their review confirmed the tool's appropriateness for measuring students' reading comprehension difficulties. By integrating Phil-IRI and STAAR-based assessments, the study comprehensively evaluates students' reading comprehension across different difficulty levels and question formats, allowing for a more nuanced understanding of their literacy challenges.

The study employed a self-made, semi-structured interview guide for the qualitative phase. This instrument was effective for this research design because it allowed flexibility throughout the interview process and encouraged participants to provide open-ended responses for more detailed information [12]. Similarly, this underwent a validation process, which the same experts checked.

2.4. Data gathering procedure

The study underwent individual reading assessments by the student participants, which helped identify the common reading comprehension difficulties among the students. The researchers also conducted in-depth interviews with students and teachers to supplement and contextualize the findings. This phase was essential because it allowed the study to gather deep insights into the factors influencing the identified difficulties.

2.5. Data analysis

In the quantitative phase, the study employed descriptive statistics, including the mean, median, mode, and standard deviation, to quantify the extent of the reading comprehension difficulties among the students. For the qualitative phase, the researchers employed Clarke and Braun's framework of thematic analysis to identify the factors contributing to students' reading comprehension challenges in the post-pandemic context. This framework of analysis helped track and verify the analysis of the study while also assisting in the systematic procedure for identifying themes and patterns [13].

2.6. Ethical considerations

The study followed ethical considerations to protect the rights of the participants as well as to ensure the validity and integrity of the research [14]. Before inclusion in the study, the researchers informed all participants of the study's objective, benefits, risks, and conditions. During the research, physical, social, psychological, and all other forms of harm were avoided to an absolute minimum by following standards for engaging with participants, especially with students. Importantly, anonymity and confidentiality were maintained by anonymizing the participants' identities and making their data private. Finally, the results accurately represented the data gathered from participants.

3. RESULTS AND DISCUSSION

3.1. Reading comprehension difficulties anchoring on levels of reading

Table 1 presents the reading comprehension performance of students across four distinct levels: literal, inferential, critical, and application. These levels represent the different dimensions of reading comprehension assessed in the study. They were used to determine which specific skill areas posed the greatest challenges for students in understanding the text.

The results reflected that the participants performed well at the literal and application levels, with respective mean scores of 4.03 and 3.5, both interpreted as "good." This result aligns with findings that show grade 7 students performed strongest at the literal and application levels [15]. It implies that students at this academic level generally demonstrate competence in remembering and applying information in familiar contexts, indicating they possess foundational reading and comprehension skills.

Table 1. Reading comprehension performance of students

Level of reading comprehension	Mean	Median	Mode	Standard deviation	Interpretation
Literal	4.03	4	4	0.49	Good
Inferential	3.1	3	3	0.37	Fair
Critical	2	2	2	0.74	Poor
Application	3.5	3.5	4	0.51	Good
Overall	3.2	3.1	3.3	0.53	Fair

Scale: 4.21-5.00 (excellent), 3.41-4.20 (good), 2.61-3.40 (fair), 1.81-2.60 (poor), 1.00-1.80 (very poor)

At the inferential level, participants faced greater difficulty, as reflected by a mean score of 3.1, which falls under the "fair" category. This suggests they struggled to apply the necessary skills in this domain effectively. Inferential comprehension involves higher-order reading abilities, requiring readers to make implicit and explicit connections to grasp the deeper meaning of a text [16]. These skills include identifying cause-and-effect relationships, inferring unstated meanings, recognizing the author's intentions and motivations, interpreting underlying messages, predicting future events, and drawing logical conclusions. Furthermore, this is consistent with findings indicating that grade 7 students began to face difficulties at the inferential level [15]. This result indicates a need for enhanced instruction in teaching students to make connections between ideas and read between the lines, as this is a crucial skill for more advanced reading comprehension [17]. Educators may consider incorporating level-appropriate reading materials and implementing targeted strategies, such as inference-based instruction [17] and open-ended discussions, to strengthen students' ability to engage with texts beyond surface-level understanding. In the present context, improving this domain is crucial—not only because these skills are vital for navigating the demands of the digital age, but also because neglecting this area may lead to greater academic struggles in the future, particularly as inferential comprehension plays a significant role in the reading development of struggling adult readers [16].

The critical level is where the participants struggled the most with comprehension, with a mean score of 2.0, categorized as "poor." This indicates that their reading skills were significantly underdeveloped. Like the inferential level, critical comprehension requires advanced higher-order thinking skills. These skills include forming a well-supported stance on the text, critically analyzing its content, identifying the author's perspective, drawing connections between concepts across one or more texts through comparison and contrast, and recognizing themes, symbolism, and motifs embedded within the text. Furthermore, this finding is consistent with the results of PISA 2022, which revealed that students in the Philippines faced substantial challenges in attaining higher proficiency levels in reading [3]. This confirms that many high school students nationwide cannot comprehend extended texts, engage with abstract or counterintuitive concepts, or differentiate between fact and opinion based on subtle cues related to content or source credibility.

Moreover, this issue reflects a broader decline in essential higher-level reading competencies and practices—including critical and conscious reading, slow reading, non-strategic reading, and engagement with long-form texts—within current educational instruction [18]. Such a decline suggests that current educational instruction may not be adequately supporting the development of these advanced reading skills. The widespread inability to critically evaluate or assess information underscores a significant gap in fostering higher-order thinking skills [19].

The overall result was interpreted as "fair," with a total average mean of 3.2 and a standard deviation of 0.53. This result reveals a significant disparity in overall performance. The standard deviation suggests a moderate level of variability, implying that most students performed within a similar range, with fewer extreme outliers. Although some students achieved relatively high scores, most fell below the expected benchmark, particularly in higher levels of comprehension. This result highlights the widespread and persistent challenges in higher-order comprehension skills in today's educational landscape [19]–[21]. These findings highlight the urgent need for targeted interventions to strengthen students' critical and inferential reading abilities, which are crucial for navigating the digital age and meeting the evolving demands of today's academic and professional landscape [22]. In the Philippines, addressing this issue is vital in curbing the rising levels of functional illiteracy.

Educational practice must prioritize the integration of higher-level reading skill development [18]. Engaging in advanced reading tasks that go beyond simple text decoding has been found to strengthen a range of abilities, including language proficiency, empathy, social understanding, the ability to adopt different perspectives, concentration, and attention. To achieve this, reading instruction should embed critical analysis, inference-making, and evaluative thinking across grade levels. Teachers should be equipped with professional development opportunities focusing on strategies for fostering these complex skills through scaffolded instruction, text-based discussions, and interdisciplinary approaches.

From a policy perspective, education policymakers should revise curriculum frameworks to emphasize deeper cognitive engagement with texts rather than rote memorization or surface-level comprehension. National assessments and classroom evaluations in the country should likewise reflect a greater emphasis on students' ability to critically interpret, analyze, and evaluate texts. Furthermore, increased investment in literacy programs, particularly in underserved schools, can help bridge the gap for students who are at risk of falling behind. By addressing these areas, policy and practice can work together to cultivate a generation of readers who are not only literate but also thoughtful, discerning, and prepared for the challenges of the modern world.

3.2. Factors influencing reading comprehension difficulties

Several key factors were identified as contributing to students' reading comprehension difficulties. These were derived from the qualitative data collected during the study. Table 2 summarizes the most commonly reported challenges, offering an overview of the specific issues that affect students' ability to comprehend texts effectively.

Table 2. Factors causing reading comprehension difficulties

Themes	Categories
Challenges in reading engagement	Low priority for reading
	Lack of reading strategies
	Lack of motivation
	Multimodal learning preference
Lack of linguistic competence	Decoding difficulties
	Vocabulary deficiencies
	Syntactic processing difficulties
Remote learning repercussions	Unconducive home learning environment
	Limitations of parental tutoring
	Challenges in effective instruction
	Poor independent learning skills
Challenges from screen dependency	Excessive screen time
	Digital distractions
	Attention and focus challenges
Environmental influences	Familial and role model impact
	Influence of early educational experiences

3.2.1. Challenges in reading engagement

This theme highlights students' lack of enthusiasm and effort in reading today. It is an influential factor in their difficulties because it hinders constant reading practice and exposure. If students do not regularly practice and engage with reading materials, they will face comprehension challenges. To demonstrate this, engaged readers tend to read more, which guarantees the growth of comprehension abilities like vocabulary, integration, and any other higher-order thinking skills. Conversely, disengaged readers tend to read less, progressively impairing their reading skills. This result is in line with findings that report engagement in reading positively determines success in developing reading comprehension skills [23]. Since neural pathways in the brain necessitate constant stimulation to create and maintain skills, lacking them can lead to further decline in these abilities. When individuals do not interact with texts regularly, they miss opportunities to practice and reinforce their skills. This result suggests that interventions to increase reading engagement significantly enhance their overall literacy development. Furthermore, several factors contribute to reduced reading engagement.

First, low priority for reading contributes to students' declining reading engagement. Qualitative data revealed that household obligations, academic responsibilities, and leisurely activities mostly consumed the students. This factor is evident in the participants' sample quoted statement:

> "*I sometimes only read... Because I'm busy at home...I wash the dishes, clean our house, and do some household chores.*" (Student 17)

As a result, there were fewer opportunities to develop comprehension abilities due to infrequent reading. This result implies that the declining engagement of reading among children today is evident [24]. Engaged and interested readers are more likely to prioritize reading, even when faced with competing demands on their time and attention.

Secondly, the lack of reading strategies significantly contributes to difficulties understanding texts. Using appropriate reading strategies is crucial for facilitating adequate reading comprehension and developing this skill over time [25]. However, the present study found that the lack of proper reading

strategies hinders comprehension and may negatively affect students' engagement with reading. When students do not possess an effective strategy, they cannot approach texts efficiently, making reading feel frustrating and unproductive. As a result, they are more likely to lose interest and disengage from reading activities, reinforcing harmful attitudes and perceptions toward reading. This cycle of struggle, frustration, and avoidance highlights how a lack of comprehension skills can ultimately diminish students' motivation and engagement with reading. Data revealed that participants' common strategy is to reread the text. This factor is evident in the participants' sample quoted statement:

"*I'll just reread it again and again until it's absorbed in my brain.*" (Student 10)

Third, lack of motivation. The reports revealed that the students' poor attitude toward reading—such as feelings of boredom, frustration, low confidence, or the belief that reading is difficult or uninteresting—caused this issue. This factor is evident in the participants' sample quoted statement:

"*No, I don't like to read… it's hard and tiring.*" (Student 10)

Most participants expressed disinterest in reading, often leading to avoiding reading activities altogether. This disengagement stemmed from dissatisfaction with the reading experience, leading many students to turn to non-reading activities such as screen time, which they perceived as more enjoyable or rewarding [26]. Many participants commonly cited the taxing and slow nature of reading as the reason for this preference. This lack of intrinsic motivation discourages students from developing regular reading habits, thereby worsening their reading comprehension difficulties. Additionally, this trend reflects a broader decline in recreational, leisurely, and independent reading among children today—a decline that has implications for the development of higher-order thinking skills. Children who possess strong intrinsic motivation to read and regularly engage in recreational reading tend to demonstrate higher reading proficiency [27]. Addressing this decline in reading motivation and habits is especially critical in the digital age.

Fourthly, qualitative data revealed that participants' multimodal learning preferences, such as watching lecture videos, decrease students' engagement with reading nowadays. While students favored these formats for their accessibility and convenience, this often led to overreliance and reduced motivation to engage with traditional reading tasks. This finding supports the assertion that multimodal media is a major contemporary factor undermining the cultivation of higher-level reading skills and practices [18]. The present study suggests that learners find conventional reading less engaging and interactive, which often hinders deep reading and impedes the development of advanced comprehension skills. This factor is evident in the participants' sample quoted statement:

"*One reason they are not interested in reading now is because there are many video lessons. So, they will research on YouTube or Google and just listen.*" (Teacher 2)

From a broader perspective, it also implies that the evolution of technology, particularly information and communication technologies, influences reading engagement. When learners use social media and the internet as supplementary learning tools, they can enhance their reading practices [28]. However, excessive reliance on digital entertainment and rapid content consumption can lead to distraction, reducing reading engagement [29], which is essential for literacy development.

3.2.2. Lack of linguistic competence
This theme focuses on the lack of language skills necessary for comprehension. This factor encompasses the linguistic barriers, such as decoding skills, limited vocabulary, and weak sentence structure recognition. These obstacles hinder students' ability to grasp the meaning of texts and engage with them critically.

Firstly, decoding difficulties emerged as one of the most common reasons participants had problems with comprehension. Many participants demonstrated challenges in recognizing familiar and unfamiliar words during the assessments. Reading comprehension heavily depends on accurate and efficient word reading—when this skill is weak, overall understanding suffers [30]. These widespread struggles of high school students with fundamental word-level skills can be directly linked to delayed literacy development, primarily driven by the disruptions of remote learning and early educational experiences. Moreover, this category is evident in the participants' statement:

"*Earlier, I felt sorry for the child because he had a correct word, but those were the easy ones like 'it,' 'help,' and 'with.' They say 'needed' for the word 'need.' Why do they fill it? That is*

insertion. Well, they have a lot of miscues, mispronunciations, omissions, repetition, substitution, and transposition. That is what they usually do. The worst is that they do not know how to pronounce the words correctly." (Teacher 1)

Secondly, vocabulary deficiencies emerged as another significant factor. Data revealed that many students struggled with unfamiliar words because of their limited vocabulary. This finding supports the argument that vocabulary plays a crucial role in comprehension, as a strong vocabulary enables readers to understand written texts better. The issue is strongly linked to declining reading habits and limited language exposure, partly due to increased reliance on technology and media consumption. Moreover, this category is evident in the participants' sample quoted statement:

"*I have a hard time with what I read because of the meanings, especially those words that I have not come across and are not used daily... If there are many such unfamiliar words, I will be discouraged, and it will be hard for me to focus. I can't read immediately because I pause to seek meaning.*" (Student 15)

These findings highlight the need to prioritize vocabulary development as a key area for improvement. This could include implementing strategies such as word repetition, vocabulary notebooks, meaning analysis, and word mapping—techniques that enhance the student's ability to recognize, understand, and retain new vocabulary [30]. These practices supported word-level understanding and contributed to improved reading fluency and comprehension by reinforcing contextual meaning and engagement with the text.

Thirdly, syntactic processing difficulties significantly hinder students' comprehension of texts. Data revealed that these challenges often led to a loss of motivation and focus while reading, making it harder for students to identify main ideas and follow the flow of information. This finding suggests that long sentences and complex grammatical structures can overwhelm readers, causing cognitive overload and reducing comprehension. These findings are consistent with research that highlights grammatical complexity as a key barrier to effective comprehension [31]. Difficulties at the sentence and discourse levels impair higher-order thinking skills essential for reading comprehension, such as making inferences, recognizing cohesive devices, integrating information, and applying contextual understanding. Such challenges often result in misinterpretations, preventing students from grasping nuanced meanings within texts. These struggles stem from weak foundational word-level skills or difficulties sustaining attention, potentially influenced by modern tendencies toward instant gratification, shaped by frequent technological consumption. Moreover, this category is evident in the participants' sample quoted statement:

"*Sometimes there are sentences with difficult grammar, like there are complex sentences such as zero conditional (tenses) that don't seem to have a clear point.*" (Student 15)

3.2.3. Remote learning repercussions

The third theme highlights the disruptive impacts of remote learning on students' reading comprehension skills. This shift began during the pandemic, when the quality of education was generally lower [32], which contributed to delays in the acquisition of foundational reading skills for many learners. Today, remote learning has become a widely adopted alternative in various education settings [33], especially when in-person schooling faces logistical challenges. While remote learning offers certain advantages, gaps in its implementation continue to exacerbate reading comprehension difficulties, raising concerns about its long-term effects on literacy development. Furthermore, this is due to different factors covered in the ensuing categories.

Firstly, an unconducive home learning environment was a significant factor. Participants reported that the space in their home was full of distractions, resulting in difficulty concentrating on learning and reading. This is evident in the participants' sample quoted statement:

"*At home, there were so many distractions. There was noise from the TV or radio because there were children and old people in our house, and sometimes, there were movies or music that grabbed my attention. Sometimes my siblings were playing, and I could not concentrate on what I was reading because of this.*" (Student 21)

The problem arises because students struggle to compartmentalize home and school environments and to maintain the discipline needed to resist household distractions. In the present context, this suggests that learning and reading skills develop quickly in a home environment conducive to reading. This supports

findings that a supportive reading environment significantly enhances reading comprehension by increasing reading enjoyment and time spent reading [34].

Secondly, limitations of parental tutoring are one of the repercussions of remote learning that influence reading comprehension difficulties. Participants reported that their parental figures at home lacked supervision of their knowledge, and the quality of the support they provided was poor. This is due to parents' lack of time and inability to become teachers for their children. This is evident in the participants' statement:

"Then we did a home visit… 'Ma'am, I'm very sorry because I can't teach my son; I've only completed grade 1.' You know my tears rushed out after hearing it. What can they teach? You cannot give what you do not have. You cannot teach what you do not know." (Teacher 1)

This suggests that parental involvement and support at home drive the development of reading comprehension skills; the more actively parents help their child, the more the child excels in these areas. Parental involvement plays a critical role in shaping children's literacy habits, especially during their formative years [35]. This highlights how significant parental involvement is to children's learning and development in the current context, particularly in light of the alarming decline in parental involvement in their literacy development [36].

Thirdly, challenges to effective instruction. There was limited oversight of teachers, which hindered consistent feedback and communication. Without proper guidance, students missed opportunities to address gaps in their understanding and were unaware of their areas for improvement. This is evident in the participants' sample quoted statement:

"The teacher could not explain to you right away because it was only modules, so there was no proper instruction." (Student 5)

Feedback is vital for progressive learning [37], particularly for young learners with shorter attention spans who require structured guidance. Continuous exposure to related contexts can help students gradually recognize their own shortcomings over time. However, self-reflection usually occurs more slowly and is less effective than the immediate awareness that direct teacher feedback provides.

Additionally, the absence of direct peer interaction contributed to a poorer learning experience for students, as children learn best through collaboration [38]. Peer engagement fosters deeper understanding through discussion and shared problem-solving, enhancing motivation, social skills, and critical thinking [39]. Without peers in remote learning settings, students struggled to maintain interest, develop communication skills, and gain diverse perspectives, ultimately hindering their learning experience.

These factors suggest that the shift to remote learning has affected students' reading progress due to the changes in the quality of educational experiences. This is similar to findings that revealed school closures led to a significant decline in young learners' reading achievement [40]. Their study reinforces concerns that distance learning models failed to provide the same level of instruction and engagement necessary for sustained reading development, contributing to delays in foundational reading skills.

Fourth, poor independent learning skills were a factor causing students to regress during that period. Participants reported difficulties understanding the learning material independently, requiring a teacher to guide them. Given the students' reading comprehension difficulties, learning in this mode is more difficult. This confirms Vygotsky's idea of scaffolding, stating that learners need temporary support to learn new skills or complete tasks [41]. Since most participants did not have competent and active adults at home, they experienced a slower learning process compared to students in a traditional classroom with constant supervision. This influences how quickly students achieve and how their literacy develops.

Data also revealed that students relied on Google and had their parents, guardians, or siblings answer their schoolwork. This suggests that remote learning was not particularly progressive, resulting in delays in developing essential reading comprehension skills. This is evident in the participants' statement:

"During the modular learning, we knew as teachers that they did not answer the modules. So, they did not know how to read because they didn't practice reading because their parents answered their schoolwork. One parent passed their child's modules and said, 'Ma'am, I'm very sorry, ma'am, for the last submission; I just finished answering.'… The handwriting was perfect." (Teacher 1)

3.2.4. Challenges from screen dependency

The fourth theme refers to the increasing technological use among students that adversely distracts them from their relationship with reading. This shift reflects the emergence of a new reading environment,

which is detrimental to the development of higher-level reading skills and practices [18]. The current media climate, dominated by fast-paced, short, and often shallow digital content, does not foster the sustained engagement necessary for deep reading and comprehension [18].

Data from the study reveals that many students today spend excessive time on mobile phones, often prioritizing instant entertainment over learning. This heavy reliance on non-educational digital content reduces reading exposure and practice, ultimately hindering their comprehension development. Excessive screen time, rapid and inappropriate content exposure, and unsupervised digital consumption can negatively impact a child's learning and language development [42]. When screen use dominates reading and academic activities, it creates barriers to comprehension growth and weakens students' ability to engage meaningfully with texts.

Additionally, digital distractions diminish students' enthusiasm and concentration while reading. Participants reported that their focus often shifts when they easily access mobile devices, making it challenging to engage deeply with texts. This is evident in the participants' sample quoted statement:

> "*I get easily distracted by gadgets. When I'm reading, I struggle to concentrate because my mind keeps wandering to my phone.*" (Student 21)

Teachers also observed that students struggle with self-discipline regarding screen time, which contributes to shortened attention spans and difficulty processing written material. This observation is consistent with findings that extended exposure to short-form digital content impairs sustained attention and diminishes critical thinking abilities [43]. As a result, many students today resort to skimming rather than reading comprehensively, missing essential details and struggling to develop higher-order thinking skills.

These findings underscore the urgent need for structured digital literacy programs targeting both children and parents [44]. Such programs should promote responsible screen use while encouraging students to balance digital engagement with meaningful, sustained reading activities. Without timely interventions, excessive screen exposure may continue to hinder reading development and widen existing literacy gaps. One research cites Regional Education Council member, who warns that early exposure to fast-paced digital content can condition children's brains in ways that make learning to read later in life significantly more difficult [45].

3.2.5. Environmental influences

The final theme is the social environment influencing students' reading comprehension skills. This is a critical factor because the environment's nurture determines children's learning and development. Many children do not achieve their full potential because they do not have optimal learning conditions at home or school [46]. The following sections discuss the categories under this theme.

Firstly, familial and role model impacts contribute to environmental influences on reading. Interview reports indicate that most students, particularly those with severe difficulties, lack role models and support from parents. The lack of value placed on reading, as displayed by the parents, contributed to students' low engagement in reading activities. The following quoted statement depicts these challenges:

> "*During our home visitations, what happens is that mostly, the child who misbehaves is a child who is a non-reader; the mother would play tong-its... We do a home visit, and during our home visitation period, we intentionally schedule it around lunchtime when the family is present. But when we arrived, they were not around; we only found the child there cooking rice, while the mother was off playing tong-its, and that's why the child became a victim of the environment.*" (Teacher 5)

This finding aligns with a study that emphasizes the crucial role of parental involvement in the development of children's reading comprehension skills [47]. A key contributing factor to the lack of such involvement is the common belief that educating children is solely the school's responsibility, resulting in minimal support for reading at home. Moreover, the increasing prevalence of screen time—where children often imitate their parents' passive or unproductive digital habits—further reduces their engagement with reading [42].

Secondly, the influence of early educational experiences. Data revealed that poor-quality early education is a key factor contributing to reading comprehension difficulties. Students who did not receive a high-quality education in their early years showed challenges in their later academic levels in reading comprehension. This finding aligns with research highlighting that effective early literacy practices are instrumental in producing skilled readers [48]. The following sample statement depicts these challenges:

"Honestly, our non-readers primarily came from [school name]. Our halting students were also from [school name], and our syllabics were from [school name]. But truly, it's [school name] where many of our most struggling students come from." (Teacher 5)

Furthermore, challenges within the education system contribute to this issue. The curriculum has not adequately addressed the evolving needs of learners and society, leaving educators grappling with ineffective instructional strategies [49]. This misalignment stems from the curriculum's inability to keep pace with societal and academic demands, often resulting in students being underprepared for complex learning tasks. Additionally, traditional teaching methods remain prevalent, with a continued emphasis on rote memorization and teacher-centered instruction. These outdated approaches hinder the development of students' higher-order thinking and comprehension skills.

Teacher reports from interviews highlight these concerns, noting that increasing demands on educators, alongside systemic challenges, have made it more difficult for schools to provide every child with the support needed to reach their full potential. Given these findings, educators and policymakers must prioritize consistent scaffolding instruction in primary and elementary schools to produce a new generation of students in the digital age with stronger reading comprehension skills. These findings also underscore the broader need to enhance the quality of early education in the country by improving learning environments, ensuring that teachers receive adequate training and resources, and addressing teacher shortages [50]. Refining teachers' questioning techniques, instructional strategies, and pedagogical approaches is vital for promoting students' higher-order thinking skills [49]. Ultimately, strengthening this foundational stage of education is crucial, as it plays a key role in minimizing long-term academic difficulties and ensuring positive outcomes for both learners and the nation.

4. CONCLUSION

Students performed well at the literal and application-level comprehension, yet they struggled with inferential and critical reading skills, revealing a gap in higher-order thinking abilities among learners today. Contributing factors included a lack of reading engagement, a lack of linguistic competence, remote learning repercussions, challenges from screen dependency, and environmental influences. These challenges underscore the need for targeted interventions to strengthen students' critical reading abilities and foster deeper comprehension.

To address these issues, this study recommends that educators conduct action research to evaluate and implement teaching interventions to improve reading comprehension in today's digitally driven, post-pandemic educational landscape. Integrating instructional approaches prioritizing higher-order thinking skills will better equip students with critical reading abilities necessary for academic success, lifelong learning, and navigating the complexities of the digital age. In addition, encouraging more reading practice through remedial sessions, peer tutoring, or home tutoring can help rebuild students' decreasing reading habits and engagement. Additionally, educators should develop engaging and thought-provoking reading materials to capture students' interest and improve comprehension skills. Moreover, instead of viewing screen dependency as a hindrance, schools can leverage technology by incorporating multimodal reading resources to enhance student engagement. Lastly, given the limitations of school and teacher support, fostering collaboration between schools, families, and communities is crucial in creating a sustainable support system for students.

AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Josh Erick G. Albarico	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
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C	: **C**onceptualization	I	: **I**nvestigation
M	: **M**ethodology	R	: **R**esources
So	: **So**ftware	D	: **D**ata Curation
Va	: **Va**lidation	O	: Writing - **O**riginal Draft
Fo	: **Fo**rmal analysis	E	: Writing - Review & **E**diting

Vi : **Vi**sualization
Su : **Su**pervision
P : **P**roject administration
Fu : **Fu**nding acquisition

CONFLICT OF INTEREST STATEMENT

The authors state no conflict of interest.

DATA AVAILABILITY

Due to confidentiality agreements, interview transcripts and thematic analyses are not publicly available but may be provided upon reasonable request, subject to ethical approval and data privacy guidelines.

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