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Enhancing quality education: Analyzing the comprehension levels of college freshmen students through their reading skills

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Abstract: This study investigates the comprehension levels of college freshmen students to enhance the quality of education through improved reading skills. Using a descriptive quantitative design, it examined 143 first-year students enrolled in the Bachelor of Elementary Education (BEEd) and Bachelor of Secondary Education (BSEd) programs at the Eulogio "Amang" Rodriguez Institute of Science and Technology. A validated comprehension test assessed literal, interpretative, and critical reading skills. Results revealed that students performed best in literal comprehension, followed by interpretative and critical levels, indicating foundational proficiency but limited higher-order comprehension. A significant difference was found between BEEd and BSEd students in interpretative reading, favoring BEEd students. These findings underscore the need for instructional strategies that strengthen metacognitive awareness, critical literacy, and analytical reasoning. The study contributes to understanding literacy development and supports curriculum reforms aligned with the United Nations Sustainable Development Goal (SDG) 4: Quality Education.

Keywords: *Critical thinking, Interpretative, Literal, Quality education, Reading comprehension.*

1. Introduction

In today's digital learning environment, students are increasingly shifting from traditional reading materials to multimedia content such as videos, infographics, and social media posts. This change in information consumption has reduced opportunities for sustained reading, contributing to weaker reading habits among college students. Many enter higher education with limited exposure to complex texts that require deep cognitive engagement, posing a challenge to achieving quality education [1]. Reading comprehension is a critical academic skill that goes beyond decoding words; it involves constructing meaning, integrating prior knowledge, and critically evaluating information [2]. Strong comprehension abilities enable students to engage with academic texts, analyze arguments, and apply knowledge in real-world contexts. However, increased reliance on instant digital content often hinders the development of these essential literacy skills [3].

Reading comprehension is typically assessed through three major dimensions: literal, interpretative, and applied reading. Literal comprehension focuses on understanding information explicitly stated in the text, interpretative comprehension involves making inferences and recognizing implied meanings, while applied comprehension requires critical evaluation and application of ideas beyond the text [4]. Research consistently shows that comprehension depends on cognitive, linguistic, and contextual factors, including vocabulary knowledge, background knowledge, and metacognitive strategies [5]. Students who struggle with comprehension are more likely to experience academic challenges and lower engagement in critical thinking tasks [6].

This study aims to assess the comprehension levels of first-year education students enrolled in Bachelor of Secondary Education and Bachelor of Elementary Education programs, focusing on their performance in literal, interpretative, and applied reading tasks. It seeks to determine their strengths and weaknesses, compare performance across programs, and examine whether course differences

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significantly influence reading ability. Addressing these questions will help inform targeted instructional interventions that support reading development in higher education.

The study is grounded in two theoretical frameworks. Schema theory emphasizes that comprehension is shaped by the reader's background knowledge and prior experiences, which guide interpretation and understanding [7]. Reader-response theory highlights the active role of the reader in constructing meaning through interaction with the text [8]. These perspectives underscore the dynamic and interactive nature of reading, suggesting that effective instruction must activate prior knowledge, foster critical engagement, and promote meaningful literacy practices [9]. By analyzing comprehension through these lenses, this study aims to generate insights that can enhance reading instruction, support curriculum improvement, and strengthen critical literacy among college freshmen.

2. Methodology

This study employed a descriptive quantitative research design to analyze the comprehension levels of college freshmen students through their reading skills. It focused on first-year students enrolled in the Bachelor of Elementary Education (BEEd) and Bachelor of Secondary Education (BSEd) programs at the College of Education, Eulogio "Amang" Rodriguez Institute of Science and Technology (EARIST) during the academic year 2024–2025. A total of 143 respondents participated in the study.

A reading comprehension questionnaire served as the main instrument for data gathering. The test included passages followed by questions designed to assess three levels of comprehension: literal, interpretative, and applied. The questionnaire was validated by experts in reading and language education to ensure accuracy, relevance, and clarity. A pilot test confirmed its reliability with a high internal consistency score. Data collection was conducted in a controlled classroom setting with the assistance of course instructors. Participants were informed of the study's purpose, and their participation was voluntary. The researcher observed ethical considerations throughout the process, ensuring confidentiality and the protection of participants' rights.

After gathering the data, descriptive and inferential statistics were used to analyze the results. Frequency, percentage, mean, and standard deviation were computed to describe the students' performance in reading comprehension, while an independent samples t-test was conducted to determine whether there was a significant difference between the BEEd and BSEd students' comprehension levels at a 0.05 level of significance. The findings provided valuable insights into the students' reading proficiency and served as a basis for enhancing the quality of education through improved reading instruction and comprehension development.

3. Results and Discussion

Reading Profile of the Respondents in terms of their Comprehension Skills according to Literal Reading Performance Level, Interpretative Reading Performance Level, and Critical Thinking Reading Performance Level

Table 1.
Comprehension Skills of the Respondents in Terms of Reading Performance Levels

Reading Performance Levels	N	Total No. of Items	Mean	SD	VI	Rank
Literal Level	143	15	9.71	2.12	GR	1
Interpretative Level	143	15	9.38	2.23	GR	2
Critical Level	143	15	7.90	1.96	GR	3
Average Mean			9.00		GR	

Legend:

Mean Scores	Verbal Interpretation
13.00 – 15.00	Excellent Reader (ER)
10.00 – 12.99	Very Good Reader (VGR)
7.00 – 9.99	Good Reader (GR)
4.00 – 6.99	Fair Reader (FR)
0.00 – 3.99	Poor Reader (PR)

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As shown in Table 1, the respondents' reading comprehension performance revealed varying levels of proficiency across the three reading levels. The literal level obtained the highest mean score (M = 9.71), followed by the interpretative level (M = 9.38) and the critical level (M = 7.90). These results indicate that the respondents demonstrated strong literal comprehension skills, particularly in identifying explicit details and recalling factual information.

This finding supports Afflerbach's [10] view that literal comprehension forms the foundation of reading proficiency and aligns with Duke et al. [11], who emphasized that mastery of literal comprehension is necessary for developing higher-order reading skills. Students who retrieve factual information effectively are more capable of constructing meaning and engaging deeply with texts.

The interpretative level showed a moderate performance, suggesting that students could recall details but found it challenging to infer meaning and identify underlying themes. According to Grabe and Stoller [12] and Pearson et al. [13], interpretative comprehension requires integrating prior knowledge with textual information, supported by strategies such as inferencing, questioning, and summarizing. This highlights the need for explicit strategy instruction to enhance interpretative understanding.

The lowest performance was observed at the critical reading level, though it still fell under the "good reader" category. This result indicates that students struggled with evaluating arguments, synthesizing ideas, and judging the credibility of information. Shanahan [14] and Snow [15] explained that critical reading involves complex cognitive and analytical reasoning, which are essential for academic literacy and content learning.

These results are consistent with previous studies. Swanson et al. [16] and Sawchuk [17] found that students often face greater difficulty with critical comprehension tasks requiring analysis and evaluation. However, Okkinga et al. [18] and Graham et al. [19] demonstrated that structured reading strategy instruction and integrated literacy approaches can significantly enhance students' interpretative and critical reading abilities.

Overall, the respondents were classified as "good readers," indicating adequate comprehension skills but revealing a gap between literal and critical reading performance. As Allington et al. [20] emphasized, balanced literacy instruction that integrates vocabulary development, comprehension strategies, and critical literacy can bridge this gap and promote deeper reading engagement.

Moreover, García and Cain [21] stressed that vocabulary and background knowledge influence comprehension development. Berardo [22] further highlighted that authentic reading materials enhance motivation and engagement. Similarly, Kim et al. [23] found that content-based literacy instruction improves comprehension, domain knowledge, and academic engagement, aligning with current frameworks promoting critical and disciplinary literacy.

The respondents exhibited strong literal comprehension, moderate interpretative ability, and difficulty in critical reading. Addressing this gap requires instructional approaches that develop higher-order thinking, use authentic reading materials, and integrate reading instruction across disciplines to promote advanced literacy skills and lifelong learning.

The identified strengths and weaknesses of the respondents are based on their reading performance level, as indicated by their comprehension skills.

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3.1. Literal Level Reading Performance

Table 2.
Strengths and weaknesses of the Respondents Based on the Literal Levels Reading Performance, as based on their Reading Comprehension Skills

Literal Levels Reading Performance	N	No. of Items	Mean	SD	VI	Rank
Noting Details	143	7	4.86	1.20	VGR	2
Identifying Reference	143	8	4.89	1.57	GR	1

Legend:

For Noting Details:		For Identifying Reference:	
Mean Scores	**Verbal Interpretation**	**Mean Scores**	**Verbal Interpretation**
5.61 – 7.00	Excellent Reader (ER)	7.61 – 8.00	Excellent Reader (ER)
4.21 – 5.60	Very Good Reader (VGR)	6.21 – 7.60	Very Good Reader (VGR)
2.81 – 4.20	Good Reader (GR)	4.81 – 6.20	Good Reader (GR)
1.41 – 2.80	Fair Reader (FR)	3.41 – 4.80	Fair Reader (FR)
0.0 – 0.99	Poor Reader (PR)	0.00-2.99	Poor Reader (PR)

As presented in Table 2, the respondents' performance in literal reading showed minimal variation between the two subskills. *Identifying Referents* obtained a mean score of 4.89 (SD = 1.57), slightly higher than *Noting Details* with a mean of 4.86 (SD = 1.20). This small difference suggests that the respondents exhibited fairly consistent ability in retrieving specific details and recognizing textual referents. Their "Very Good Reader" and "Good Reader" ratings imply commendable literal comprehension performance, reflecting a solid foundation in basic text processing.

This finding aligns with Afflerbach [10], who asserted that literal comprehension forms the groundwork for more complex reading processes. The respondents' strong performance in *Noting Details* indicates that they could readily identify explicit facts and events, while the slightly lower score in *Identifying Referents* points to minor gaps in recognizing cohesive ties within the text.

Literal comprehension depends on accurately retrieving explicit information and recognizing linguistic patterns. Kendeou et al. [24] explained that comprehension at this level involves using text-based cues and working memory to form coherent representations. The slight gap in referent identification may indicate occasional difficulty in linking pronouns to antecedents or connecting ideas across sentences. Ly [25] suggested that explicit instruction in cohesive devices can improve referent recognition, thereby enhancing overall comprehension.

The current results are consistent with studies showing that students generally perform best on literal comprehension tasks that require direct recall rather than inferential reasoning [26]. However, the respondents' relatively strong performance in both subskills implies that they possess foundational reading strategies that allow them to navigate surface-level comprehension effectively. Santema [27] emphasized that instruction focusing on text structure awareness can further strengthen these abilities.

To address specific weaknesses, Suhaila et al. [28] recommended targeted interventions such as guided questioning and cohesive device exercises to reinforce students' ability to identify referents accurately. Such interventions promote balanced development in literal comprehension, paving the way for improvement in interpretative and critical reading.

Finally, Peters et al. [29] highlighted the importance of precise reading assessments in identifying learners' strengths and weaknesses. Through accurate measurement of literal comprehension, educators can design differentiated instructional strategies that build upon students' strengths in *Noting Details* while addressing areas that require improvement in *Identifying Referents*.

Overall, the respondents' strong literal comprehension performance demonstrates a solid base for developing higher-level reading skills. Yet, the slight discrepancy between the two subskills underscores the need for instructional practices that enhance referent identification and promote awareness of textual cohesion. Strengthening these skills is essential for fostering a deeper understanding and improving overall reading proficiency.

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3.2. Interpretative Level Reading Performance

Table 3.
The strengths and weaknesses of the respondents on the interpretive level reading performance based on their reading comprehension skills.

Interpretative Levels Reading Performance	N	Total No. of Items	Mean	SD	VI	Rank
Getting the Main Idea	143	3	1.25	0.73	FR	5
Making Inference	143	3	1.92	0.74	GR	3
Drawing Conclusions	143	3	1.98	0.72	GR	2
Predicting Outcomes	143	3	2.31	0.77	VGR	1
Determining Values	143	3	1.90	1.00	GR	4

Legend:

Mean Scores	Verbal Interpretation
2.50 – 3.00	Excellent Reader (ER)
2.00 – 2.59	Very Good Reader (VGR)
1.50 – 1.99	Good Reader (GR)
1.0 – 1.49	Fair Reader (FR)
0.0– 0.99	Poor Reader (PR)

As shown in Table 3, the respondents demonstrated varied proficiency across interpretative sub-skills. *Predicting Outcomes* achieved the highest mean score (M = 2.31, SD = 0.77), indicating that respondents showed strength in anticipating possible developments using contextual clues. *Drawing Conclusions* and *Making Inferences* followed with mean scores of 1.98 and 1.92, respectively, suggesting moderate inferential competence. Conversely, *getting the Main Idea* ranked lowest (M = 1.25, SD = 0.73), revealing a weakness in identifying the author's central message. These findings suggest that while students could interpret details and predict outcomes, they struggled to synthesize ideas into a unified concept.

The pattern of results implies that respondents were capable of localized interpretation but encountered difficulty constructing a global understanding of the text. Perfetti and Stafura [30] explained that comprehension requires integration of lexical, syntactic, and inferential processing to form a coherent mental model. The low performance in identifying the main idea may therefore result from limited vocabulary and weak inferential connections that hinder higher-level comprehension.

This imbalance reflects the findings of Villanueva [31], who observed that college students often excel in detail-oriented tasks but perform poorly in synthesizing information due to inadequate metacognitive strategies. Similarly, Calub [32] noted that many college freshmen exhibit low proficiency in determining main ideas, highlighting the need for explicit instruction that develops higher-order comprehension skills.

The respondents' strong performance in *Predicting Outcomes* aligns with Karim et al. [33], who found that content-based instruction enhances contextual understanding and predictive reasoning. Likewise, Utama and Hidayatullah [34] reported that reciprocal teaching strategies, which emphasize prediction and questioning, improve students' inferential skills by promoting active engagement with text.

On the other hand, the weakness in *Getting the Main Idea* supports the findings of Tomas et al. [35], who identified that limited vocabulary, insufficient background knowledge, and poor reading habits often impede comprehension. Sterpin et al. [36] also emphasized that vocabulary knowledge is critical for inference generation and overall comprehension, suggesting that lexical enrichment is essential for improving main-idea identification.

The variability in interpretative performance further supports Cain and Oakhill's [37] claim that comprehension problems stem from difficulty in integrating ideas across sentences, resulting in fragmented understanding. Respondents may process sentence-level details but fail to connect them into a coherent macrostructure, leading to partial comprehension.

Moreover, Arisga et al. [38] highlighted that science-based instructional approaches enhance analytical and interpretative reading by requiring systematic evaluation of textual evidence. Likewise,

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Capanzana and Avilla [39] demonstrated that Reciprocal Teaching with Self-Regulated Learning (RT-SRL) improves metacognitive awareness and self-monitoring, both crucial for interpretative comprehension.

In summary, the respondents' strengths in predicting outcomes and their weaknesses in identifying main ideas illustrate an uneven development of interpretative reading skills. Addressing these gaps requires adopting content-based, reciprocal, and technology-integrated approaches that promote critical reasoning, synthesis, and metacognitive awareness skills vital for advancing from surface comprehension to deeper textual understanding.

3.3. Critical Level Reading Performance

Table 4.
Strengths and Weaknesses of the Respondents on Critical Level Reading Performance Based on Their Reading Comprehension Skills.

Critical Level Reading Performance	N	Total No. of Items	Mean	SD	VI	Rank
Identifying the Author's Purpose	143	3	2.01	0.82	VGR	2
Comparing what is said in the story and previous knowledge	143	3	2.10	0.87	VGR	1
Determining Relevant and Irrelevant Information	143	3	1.81	0.81	GR	3
Seeing Implication	143	3	1.26	0.71	FR	4
Detecting Bias, Prejudice, or Propaganda	143	3	1.06	0.78	FR	5

Legend:

Mean Scores	Verbal Interpretation
2.50 – 3.00	Excellent Reader (ER)
2.00 – 2.59	Very Good Reader (VGR)
1.50 – 1.99	Good Reader (GR)
1.00 – 1.49	Fair Reader (FR)
0.00 – 0.99	Poor Reader (PR)

As shown in Table 4, the respondents' performance at the critical level varied across sub-skills. The highest mean score (M = 2.10, SD = 0.87) was obtained in *Comparing What Is Said in the Story and Previous Knowledge*, followed by *Identifying the Author's Purpose* (M = 2.01, SD = 0.82). These results indicate that the respondents demonstrated relative strength in integrating textual content with prior knowledge and understanding of authorial intent. However, *Determining Relevant and Irrelevant Information* (M = 1.81, SD = 0.81), *Seeing Implications* (M = 1.26, SD = 0.71), and *Detecting Bias, Prejudice, or Propaganda* (M = 1.06, SD = 0.78) received lower scores, revealing weaknesses in higher-order critical reading skills.

The respondents' strengths appear rooted in their ability to connect new information with prior knowledge, consistent with McVee et al. [40], who emphasized that comprehension occurs through schema activation, the process of integrating new input with existing cognitive structures. Likewise, Smith et al. [41] asserted that extensive background knowledge enhances inferential and evaluative comprehension, explaining why students performed well in relating story content to prior experience and authorial purpose.

Conversely, the weaknesses observed in distinguishing relevant from irrelevant details, identifying implications, and detecting bias suggest gaps in inferential and evaluative comprehension. Fitria and Nafiah [42] found that students often struggle with inferential reading because it requires reasoning beyond literal understanding. Instruction that develops Higher-Order Thinking Skills (HOTS), they argued, significantly strengthens inferential comprehension, an approach that can help address the respondents' deficiencies.

The difficulty in identifying bias and propaganda reflects limited exposure to critical literacy practices. Hezam et al. [43] noted that EFL learners often fail to evaluate implicit meanings or authorial stance due to a lack of critical reading instruction. Similarly, Sari [44] highlighted the importance of metacognitive regulation, explaining that effective readers consciously apply strategies such as monitoring, summarizing, and questioning to comprehend deeply. The respondents' low

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performance in these skills indicates insufficient metacognitive awareness and self-regulation during reading.

Further, Idulog et al. [45] observed that Filipino students frequently struggle with analytical and evaluative reading, which affects their overall comprehension. Adora et al. [46] also confirmed that reading proficiency directly influences students' academic success, emphasizing the urgency of strengthening higher-order comprehension abilities among college learners.

Technological and contextualized interventions have shown promise in improving critical reading. Marvas et al. [47] demonstrated that the Kiddie ReCom App enhances comprehension through interactive, analytical tasks, while Jimenez and Ocampo [48] found that localized reading materials improve engagement and understanding by activating culturally relevant schemas. These studies support the integration of technology and context-based learning to develop critical comprehension.

The respondents' low ability to detect bias and propaganda may also be linked to limitations in digital literacy. Fajardo [49] revealed that Filipino students exhibit emerging competencies in evaluating online information credibility, making them vulnerable to manipulation. Carambas and Tibaldo [50], therefore, advocate support the inclusion of Media and Information Literacy (MIL) in curricula to foster evaluative judgment and resistance to biased content in both print and digital media.

Finally, Hasan et al. [51] emphasized that promoting critical thinking in ESL classrooms strengthens reading comprehension by engaging students in evaluative discussions and argumentation. Embedding these practices into reading instruction can help learners develop interpretative depth and analytical reasoning.

The findings indicate that while respondents demonstrated adequate comprehension at the schema-activation level, their inferential and evaluative skills remain underdeveloped. These results align with local and international studies, highlighting the need for reading instruction that integrates metacognitive training, critical literacy approaches, and digital literacy development to enhance students' comprehensive reading proficiency and academic success.

3.4. The Reading Performance of the Respondents According to The Course

Table 5.
Reading Performance Level of the Respondents According to the Course.

Criteria	BSE				BEED			
	M	%	VI	Rank	M	%	VI	Rank
Literal Reading Performance	9.61	80	GR	1	9.83	80	GR	2
Interpretative Reading Performance	8.96	77	GR	2	9.86	80	GR	1
Critical Thinking Performance Level	8.03	77	GR	3	7.74	73	GR	3

Legend:

Mean Scores	Verbal Interpretation
13.00 – 15.00	Excellent Reader (ER)
10.00 – 12.99	Very Good Reader (VGR)
7.00 – 9.99	Good Reader (GR)
4.00 – 6.99	Fair Reader (FR)
0 – 3.99	Poor Reader (PR)

The findings revealed slight variations in reading performance between Bachelor of Secondary Education (BSE) and Bachelor of Elementary Education (BEED) students. BSE students obtained the highest mean score in *Literal Reading Performance* (M = 9.61, 80%), indicating proficiency in recalling details and recognizing textual structures. Conversely, BEED students scored slightly higher in *Interpretative Reading Performance* (M = 9.86, 80%) than BSE students (M = 8.96, 77%), showing a stronger ability to infer meaning and understand authorial intent. Both groups exhibited weaker performance in *Critical Reading Performance*, where BSE students achieved a mean of 8.03 (77%) and BEED students 7.74 (73%).

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These results suggest that while both groups possess adequate literal comprehension, they show limited mastery of higher-order comprehension skills such as interpretation and evaluation. This pattern aligns with Duke et al. [11], who stated that reading comprehension involves the integration of inferential reasoning, synthesis, and evaluative judgment beyond mere decoding. The stronger literal comprehension scores indicate that instruction may emphasize surface-level understanding rather than analytical engagement with texts.

Pressley et al. [52] emphasized that effective reading instruction should balance decoding, fluency, and comprehension through metacognitive reflection. The low performance in critical comprehension implies a lack of explicit instruction in metacognitive and inferential strategies. Similarly, Rivas et al. [53] found that training students in metacognitive strategies significantly improves their critical thinking and evaluative reading abilities.

The BSE students' strength in literal reading could be linked to analytical tasks emphasizing accuracy and recall skills commonly practiced in secondary education contexts. Meanwhile, BEED students' higher interpretative performance reflects their engagement with pedagogical materials that focus on understanding meaning and context. As Pearson et al. [54] explained, comprehension results from the interaction of knowledge, strategy use, and language processing, which vary across disciplines.

Okkinga et al. [55] reported that reading-strategy instruction is most effective when integrated into classroom teaching through methods such as summarizing, predicting, and questioning. These strategies can help bridge the gap between literal and critical comprehension. Likewise, Lagdaan and Sevilla [56] found that contextualized and scaffolded instruction improves literacy outcomes in the Philippine context, while Po et al. [57] demonstrated that tiered instruction effectively enhances comprehension across cognitive levels.

Consistent with Ansas et al. [58], both groups' lower scores in critical reading indicate limited metacognitive awareness and self-regulation. Murtadho [59] emphasized that embedding reflective and argumentative reading activities enhances interpretative reasoning and comprehension depth. Furthermore, Shanahan [60] and Snow [61] asserted that comprehension instruction must address linguistic, cognitive, and contextual dimensions for students to construct meaning effectively. García and Cain [21] supported this by noting that vocabulary knowledge and inferential reasoning, not decoding alone, determine reading proficiency.

Finally, Suson et al. [62] and Kim et al. [63] stressed the importance of differentiated reading instruction and content integration to strengthen comprehension and disciplinary literacy. The overall results suggest that while college freshmen have sufficient foundational reading skills, they require targeted instruction to enhance analytical and evaluative comprehension. As Sawchuk [64] observed, modern literacy challenges stem not from limited reading exposure but from insufficient engagement with higher-level critical reading processes. Strengthening these skills supports Quality Education (UN SDG 4) by preparing learners to analyze, evaluate, and apply information meaningfully across contexts.

3.5. Significant Difference in the Reading Performance According to the Course

Table 6.
Computed t-value on the Reading Performance Levels of the Respondents According to the Course.

Criteria	BSE		BEED		Mean Diff.	t-value	Verbal Interpretation	Decision
	M	SD	M	SD				
Literal Reading Performance	9.61	2.13	9.83	2.12	0.22	0.625	Not significant	Accept Ho
Interpretative Reading Performance	8.96	2.31	9.86	2.03	1.90	2.46	Significant	Reject Ho
Critical Thinking Performance Level	8.03	2.14	7.74	1.73	0.28	0.862	Not significant	Accept Ho

As shown in Table 6, the computed *t*-value for Literal Reading Performance (0.625) was less than the tabulated value at the 0.05 level of significance, indicating no significant difference between Bachelor of Secondary Education (BSE) and Bachelor of Elementary Education (BEED) students. This means

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that both groups exhibited comparable skills in identifying explicit information, recalling facts, and recognizing key details, abilities that reflect foundational reading comprehension [11]. The acceptance of the null hypothesis suggests that both programs provide similar exposure to basic reading and comprehension activities.

In contrast, the computed *t*-value for Interpretative Reading Performance (2.46) exceeded the tabulated value, resulting in the rejection of the null hypothesis. This denotes a significant difference between the two groups, with BEED students demonstrating stronger interpretative comprehension than their BSE counterparts. This difference may be attributed to the BEED curriculum's emphasis on reading pedagogy, comprehension instruction, and reflective literacy practices, which develop students' ability to analyze meaning and authorial intent [59]. As Karim et al. [33] pointed out, teacher education programs naturally enhance interpretative skills through pedagogical exposure and the consistent application of comprehension strategies.

For Critical Thinking Performance, the computed *t*-value of 0.862 also fell below the tabulated value, indicating no significant difference between the two groups. Both BSE and BEED students demonstrated similar proficiency in evaluating, analyzing, and judging textual content. This finding supports Smith et al. [41], who emphasized that critical comprehension requires systematic training and repeated engagement with argumentative and analytical materials skills not yet deeply developed among first-year college students.

Overall, the results reveal that while both groups perform equally well in literal and critical comprehension, BEED students excel in interpretative comprehension. This suggests that their coursework enhances metacognitive and inferential abilities, likely due to their preparation for teaching reading and literacy. McVee et al. [40] explained that comprehension is shaped by one's schema or background knowledge, and BEED students' academic orientation may have strengthened their interpretative competence.

These findings imply that enhancing explicit comprehension instruction and promoting critical reading activities across all teacher education programs are necessary. Doing so can foster deeper literacy engagement and analytical skills among college freshmen. Strengthening these competencies aligns with the United Nations Sustainable Development Goal (SDG) 4: Quality Education, which advocates for equitable and inclusive education through improved literacy outcomes and cognitive development.

4. Conclusions

Based on the findings of the study, several conclusions can be drawn regarding the comprehension levels of college freshmen students and their implications for enhancing quality education.

1. The respondents demonstrated commendable proficiency across the three levels of reading comprehension: literal, interpretative, and critical. Their strongest performance was observed in literal reading, where they effectively identified details, recognized text structures, and followed sequences. This finding indicates that freshmen students possess a solid foundational understanding of reading comprehension, serving as a prerequisite for academic success and lifelong learning. However, the moderate performance in interpretative and critical levels suggests the need for instructional emphasis on higher-order reading skills to foster deeper comprehension and analytical reasoning.
2. The high proficiency in literal reading, particularly in noting details and recognizing text structures, reflected a strong cognitive grasp of surface-level comprehension. Nevertheless, the relatively lower performance in identifying referents indicated an opportunity for educators to design targeted learning activities that enhance students' ability to make explicit and implicit textual connections, an essential skill for understanding complex academic materials.
3. At the interpretative level, respondents exhibited competence in predicting outcomes and drawing conclusions but faced challenges in consistently identifying main ideas and synthesizing overarching concepts. This finding underscores the importance of integrating

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metacognitive strategies such as summarization, questioning, and inferential analysis into reading instruction to deepen comprehension and promote active engagement with texts.

4. In terms of critical reading, the respondents showed adequate capacity to connect textual information with prior knowledge and discern an author's purpose. However, they required further development in evaluating information, recognizing bias, and interpreting the implications of arguments. Strengthening these critical literacy skills is essential for cultivating analytical and reflective learners who can navigate diverse perspectives and make informed judgments, key attributes for achieving quality education.
5. The comparative analysis revealed notable differences in reading comprehension between programs. BEED students exhibited higher performance in interpretative reading, which may be attributed to their exposure to pedagogical courses emphasizing interpretation, analysis, and reflective reading practices. Meanwhile, BSE students demonstrated greater proficiency in literal comprehension, indicating a strength in factual recall and textual accuracy. Although differences in interpretative comprehension were statistically significant, the comparable performance in literal and critical levels suggested shared reading challenges that transcend academic specialization.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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