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LITERAL, INFERENTIAL, AND CRITICAL READING COMPREHENSION PERFORMANCE AMONG JUNIOR SECONDARY SCHOOL STUDENTS

BY

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Abstract

Comprehension, the apex goal of reading instruction, operates at multiple cognitive levels: literal (surface), inferential (deep), and critical (evaluative). This study examined JSS 3 students' performance at each of these three comprehension levels in Jebba, Kwara State, Nigeria. Using a descriptive survey design, 180 students were assessed using the Alternative Diagnostic Reading Assessment (ADRA), which included 30 comprehension questions per student distributed across literal (6 items × 3 passages = 18 marks), inferential (3 items × 3 passages = 9 marks), and critical (1 item × 3 passages = 3 marks) categories. Mean scores and frequency distributions were used for data analysis. Results showed that literal comprehension performance (mean = 9.75/18) was at the average level, while inferential comprehension (mean = 3.07/9) was below average. Critical comprehension was also below average, with 55% of students scoring 0–1 out of 3. The findings revealed a progressive decline in performance from literal to inferential to critical comprehension, pointing to significant deficits in higher-order reading skills. Targeted interventions in inferential reasoning and critical thinking are urgently recommended for JSS students in Jebba. Thus, it was recommended that English language teachers should explicitly teach inferential reading strategies such as prediction, inference from context clues, summarisation, and visualisation, using both narrative and expository texts. Moreover, critical comprehension should also be explicitly integrated into lesson plans, with guided activities that require students to evaluate author's purpose, identify bias, and relate textual content to real-world experience.

Keywords: Literal comprehension, Inferential comprehension, Critical comprehension, Reading levels, Students and Kwara State

Introduction

The ability to comprehend written text at progressively deeper levels is the hallmark of an educated and literate individual. While decoding, the conversion of print to sound, is the technical foundation of reading, comprehension is its purpose (Ikonta, 2010; Duke & Cartwright, 2021). In the contemporary knowledge economy, learners must not only understand what a text explicitly states but also draw inferences, evaluate arguments, and synthesise information across sources. These higher-order comprehension skills are essential for academic achievement and life-long learning. The National Policy on Education in Nigeria (Federal Republic of Nigeria, 2013) explicitly identifies reading comprehension as a core competency in the English Language curriculum at the JSS level. Yet, research evidence consistently suggests that Nigerian secondary school students struggle particularly with inferential and critical reading tasks (Bello, 2004; Ikonta, 2010; Akinwumi, 2017). The extent to which this pattern holds for students in Jebba, Kwara State, remained unknown prior to this investigation.

Reading comprehension has long been conceptualised as a hierarchical construct, with higher cognitive levels dependent upon, but not reducible to, lower-level skills. Barrett's taxonomy (cited in Ikonta, 2010) organises comprehension into five levels: literal recognition, reorganisation, inferential, evaluation, and appreciation. More recent models, including the RAND Reading Study Group (2002) framework, emphasise the interaction between reader, text, and task in shaping comprehension processes. Ülper (2010) describes three levels relevant to the present study: surface (literal) comprehension, which involves identifying explicitly stated facts and details; inferential (deep) comprehension, which requires drawing logical conclusions from unstated or implied information; and critical evaluation, which demands the reader's active judgment, synthesis, and appraisal of the author's intent, credibility, and effectiveness. This third level corresponds to successively higher-order thinking skills in Bloom's revised taxonomy (Anderson & Krathwohl, 2001). Literal comprehension, sometimes termed 'reading the lines', refers to the ability to identify information explicitly present in the text. It encompasses recognising key facts, understanding lexical meaning in context, following grammatical structures, and answering direct reference questions (Ikonta, 2010). Although literal comprehension is cognitively less demanding than inferential or critical reading, it nevertheless requires adequate vocabulary knowledge, sentence-level understanding, and sustained attention. Brassel and Rasinski (2008) note that for students with limited vocabulary, even literal comprehension may be challenging.

Research with Nigerian JSS students has generally found literal comprehension performance to be in the average range (Bello, 2004), reflecting the fact that most instructional practice in Nigerian English language classrooms is oriented towards literal-level questions (Ikonta, 2010). Inferential comprehension, 'reading between the lines', requires the reader to integrate textual cues with background knowledge to derive meaning that is implied but not explicitly stated (Ikonta, 2010). It encompasses drawing conclusions, predicting outcomes, identifying themes, interpreting figurative language, and making logical deductions. Oakhill, Cain, and Elbro (2019) identify inferencing as the single most important predictor of reading comprehension, noting that poor comprehenders often fail specifically at the inferential level even when their decoding and vocabulary skills are adequate. The demands of inferential comprehension are particularly challenging for EFL (English as a Foreign Language) learners such as Nigerian secondary school students, for whom English is the medium of instruction rather than a first language. Limited vocabulary breadth, restricted cultural background knowledge, and inadequate exposure to academic discourse all contribute to inferential comprehension difficulties in this population (Grabe, 2009).

Critical comprehension, also known as 'reading beyond the lines', involves evaluating the quality, accuracy, credibility, and perspective of a text. It requires the reader to compare textual information with prior knowledge, assess the author's purpose and viewpoint, detect bias and propaganda, and pass judgment on the overall merit of the text (Ikonta, 2010; Grellet, 1986). Critical comprehension is the highest cognitive demand in reading and requires the development of metacognitive awareness – the ability to think about one's own thinking and reading processes (Oakhill et al., 2019). Connor et al. (2014) note that students who lack critical reading skills are disadvantaged not only academically but also as citizens, as they are less equipped to evaluate media, arguments, and information in daily life. In the Nigerian curriculum context, critical comprehension receives comparatively less pedagogical attention than literal-level skills, contributing to a systemic gap in higher-order literacy development.

Research Questions

The following research questions guided the study:

1. What is the students' level of literal comprehension performance?
2. What is the students' level of inferential comprehension performance?
3. What is the students' level of critical comprehension performance?

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Methodology

The study employed a descriptive survey design. One hundred and eighty (180) JSS 3 students were sampled from ten secondary schools in Jebba, Moro LGA, Kwara State, using stratified random sampling with proportional allocation (97 private school students; 83 public school students). The Alternative Diagnostic Reading Assessment (ADRA) was used to collect data. The comprehension section of the ADRA consisted of three passages (JSS 1, 2, and 3 levels), each followed by ten questions: six literal, three inferential, and one critical question. The scoring scheme was: literal comprehension (6 marks × 3 = 18 marks), inferential comprehension (3 marks × 3 = 9 marks), and critical comprehension (1 mark × 3 = 3 marks), for a total of 30 comprehension marks. The instrument had a test-retest reliability of r = 0.88. Performance classification was: literal comprehension – above average (13–18), average (7–12), below average (0–6); inferential comprehension – above average (7–9), average (4–6), below average (0–3); critical comprehension – above average (3), average (2), below average (0–1). Mean scores and frequency distributions were computed to answer research questions 1, 2, and 3. Class mid-points and frequency-weighted totals (Σfx/Σf) were used to derive mean scores for research questions one and two. Frequency and percentage distributions were used for research question three given its narrow three-category scoring range.

Results

Research Question One: **What is the students' level of literal comprehension performance**?

Table 1 presents the frequency distribution and mean score for literal comprehension performance.

Table 1: ***Students' Level of Literal Comprehension Performance (N=180)***

Performance Level	Class Interval	Class Mid-Point (x)	Frequency (f)	fx
Below Average	0–6	3	29	87
Average	7–12	9.5	112	1,064
Above Average	13–18	15.5	39	604.5
Total	–	–	180	1,755.5

Mean (Σfx/Σf) = 1,755.5 / 180 = 9.75

As shown in Table 1, the mean score for literal comprehension is 9.75 out of 18, which places overall performance in the average band (7–12). The majority of students (112, or 62.2%) scored in the average range, while 29 (16.1%) were in the below-average category. Only 39 students (21.7%) achieved above-average scores on literal comprehension tasks. The results suggest that most students can process explicitly stated information at an acceptable level, though a significant minority remain at risk.

Research Question Two: **What is the students' level of inferential comprehension performance?**

Table 2 presents the frequency distribution and mean score for inferential comprehension performance.

Table 2: ***Students' Level of Inferential Comprehension Performance (N=180)***

Performance Level	Class Interval	Class Mid-Point (x)	Frequency (f)	Fx
Below Average	0–3	1.5	110	165
Average	4–6	5	57	285
Above Average	7–9	8	13	104
Total	–	–	180	554

Mean (Σfx/Σf) = 554 / 180 = 3.07

Table 2 reveals that the mean score for inferential comprehension is 3.07 out of 9, which falls in the below-average band (0–3). The distribution is strikingly negative: 110 students (61.1%) scored in the below-average range, only 57 (31.7%) in the average range, and a mere 13 (7.2%) in the above-average range. This finding represented the most acute performance deficit recorded in this study and underscores the profound difficulty that JSS students in Jebba experience with tasks requiring them to read between the lines.

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Research Question Three: **What is the students' level of critical comprehension performance?**
Table 3 presents the frequency and percentage distribution for critical comprehension performance.

Table 3: ***Students' Level of Critical Comprehension Performance (N=180)***

Score Range	Level	Frequency	Percentage (%)
0–1	Below Average	99	55.0
2	Average	52	28.9
3	Above Average	29	16.1
Total	–	180	100.0

As shown in Table 3, most students (99, representing 55%) scored in the below-average range (0–1) for critical comprehension. Twenty-nine students (16.1%) achieved the maximum of 3 marks (above average), while 52 (28.9%) scored 2 marks (average). Taken together, 84% of students scored average or below in critical comprehension, confirming that higher-order evaluative reading is a significant area of weakness for this student population.

Discussion of the Findings

The results reveal a clear and statistically meaningful gradient in comprehension performance across the three cognitive levels: literal (mean = 9.75, average), inferential (mean = 3.07, below average), and critical (55% below average). This progressive decline mirrors the hierarchical difficulty of comprehension tasks, with higher levels requiring more sophisticated integration of knowledge, inference, and evaluation. The average literal comprehension performance is consistent with the findings of Bello (2004) and Ikonta (2010), who observed that Nigerian JSS students tend to perform better on recall and identification tasks that map directly onto explicitly stated text content.

The result suggests that current instructional practice in Jebba schools adequately, though imperfectly, prepares students for literal-level reading tasks. However, the 16.1% of students in the below-average range indicates that a significant minority cannot reliably extract basic factual information from texts, which would make all subsequent comprehension deficits even more severe for this subgroup. The below-average inferential comprehension performance (mean = 3.07/9) is a particularly alarming finding. With over 61% of students in the below-average band, this result indicates that the majority of JSS 3 students in Jebba cannot reliably draw logical conclusions, make predictions, or identify implied meanings – skills that are essential for academic reading across all subjects. Oakhill et al. (2019) identify inferencing as the strongest predictor of comprehension outcomes, suggesting that the inferential deficit observed here has far-reaching consequences for academic achievement. The finding echoes Grabe (2009), who notes that EFL learners frequently struggle with inferential tasks due to limited vocabulary breadth and restricted background knowledge that are necessary to bridge textual gaps.

Critical comprehension performance was the weakest across all dimensions examined in this study, with 55% of students scoring at or near zero. This finding is consistent with the observation by Ikonta (2010) that critical reading skills receive minimal instructional emphasis in Nigerian JSS classrooms, where the dominant mode of comprehension instruction remains question-and-answer based on explicitly stated information. The low critical comprehension scores also reflect the limited metacognitive awareness – the ability to think about and regulate one's own reading – that characterises struggling readers in the middle grades (Akyol & Kayabasi, 2018). The hierarchical pattern of performance (literal > inferential > critical) has important theoretical significance. It confirms that the comprehension levels are not interchangeable – students do not simply 'comprehend' or 'fail to comprehend'; rather, they comprehend to varying degrees depending on the cognitive demands of the task. This graduated reality demands a graduated instructional response: teachers must not only ensure that literal-level skills are secured but must deliberately scaffold students' development of inferential and critical reading strategies.

Conclusion

This study demonstrates that JSS 3 students in Jebba, Kwara State, perform at the average level in literal comprehension but fall below average in both inferential and critical comprehension. The progressive decline across comprehension levels reveals a systemic weakness in higher-order reading skill development that cannot be attributed to decoding difficulties alone.

Recommendations

The following recommendations were made as the findings of the study call for urgent pedagogical intervention:

1. English language teachers should explicitly teach inferential reading strategies such as prediction, inference from context clues, summarisation, and visualisation, using both narrative and expository texts.
2. School administrators should provide professional development workshops on comprehension-strategy instruction, enabling teachers to move beyond literal-level questioning in their classroom practice.
3. Curriculum developers should ensure that inferential and critical comprehension tasks constitute a greater proportion of both instructional activities and assessment items in the JSS English Language curriculum.
4. Further studies should investigate the specific vocabulary, background knowledge, and metacognitive deficits that underlie the inferential and critical comprehension weaknesses identified in this study.

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