



(RESEARCH ARTICLE)



# Morphological Awareness on Reading Comprehension among Third-Year Criminology Students

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## Abstract

This research explored the relationship between morphological awareness and reading comprehension among third-year criminology students at Initao College in the Philippines. The study employed a quantitative descriptive correlational research design, utilizing a structured questionnaire to assess morphological awareness and reading comprehension levels. The 238 participants were third-year criminology students enrolled in the academic year 2023-2024. Findings indicated varying levels of morphological awareness proficiency, with differences observed in compounding morphemes, suffix addition, and morpheme identification. Similarly, students exhibited diverse reading comprehension abilities, showcasing strengths in inference skills and challenges in extracting explicit information. Statistical analysis revealed a significant positive moderate correlation between morphological awareness and reading comprehension, emphasizing the potential enhancement of comprehension skills through improved understanding of word structures. The implications of this study underscored the importance of incorporating targeted instructional interventions to refine teaching strategies for linguistic proficiency among criminology students. Future research may expand to broader student populations and employ mixed method designs for a comprehensive understanding of morphological awareness and reading comprehension dynamics in specialized academic contexts.

**Keywords:** Morphological Awareness; Morphological Analysis; Reading Comprehension; Purposive Communication; Criminology

## 1. Introduction

The growing body of research on language acquisition and cognitive skills underscored the critical role of morphological awareness in reading comprehension. Morphological awareness, defined as the conscious understanding of the smallest meaning structures of words (morphemes) and the ability to manipulate these structures, has been identified as a key factor influencing reading proficiency. Specifically, the awareness of inflectional and derivational morphemes, as well as compound morphological awareness, has been recognized as essential components in comprehending written language (Carlisle et al., 2010).

Within the realm of morphological awareness, distinct components hold relevance. Inflectional morphological awareness involves an understanding of morphemes that systematically mark grammatical functions on root words. Derivational morphological awareness, on the other hand, pertains to the awareness of morphemes that alter the part of speech or meaning of root words. Moreover, compound morphological awareness denotes the ability to recognize or construct new words by combining multiple root words (Kuo & Anderson, 2006).

Studies emphasized that morphological awareness intertwines with other language components, such as phonological and orthographic awareness, vocabulary, word reading, spelling, and text reading fluency (Sanchez et al., 2012; Perfetti, 1997; Ehri, 2005; Llombart-Huesca & Zyzik, 2019; Kim, 2015; RAND Reading Study Group, 2002). These interconnected

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elements contributed significantly to overall reading comprehension, shaping the students' abilities to comprehend and extract meaning from written language.

Reading comprehension is a fundamental skill essential for academic success, particularly in specialized fields like criminology, where the accurate interpretation of complex texts is paramount. Among third-year criminology students enrolled in the Purposive Communication class, the relationship between morphological awareness and reading comprehension remains a critical aspect deserving scholarly attention. While extensive research exists on the relationship between morphological awareness and reading comprehension in diverse contexts globally (Liu, et. al., 2023; Metsala, 2023; Wang, 2023; Xia, 2023; Kim, 2023; Samaraweera, 2022; Oliveira, et. al., 2020; Bishara, 2020; Al-Haydan, 2020; Zhao, et. al., 2019; Deacon, et. al., 2018), there remains a notable gap in understanding this association among third-year criminology students in the Philippines.

Investigating the levels of morphological awareness and reading comprehension proficiency within this specific academic setting is crucial. Understanding these dynamics will shed light on the unique challenges and opportunities faced by criminology students, aiding in the development of tailored instructional strategies to enhance their language skills.

The Filipino context presents a nuanced backdrop for this inquiry. With the prevalence of a bilingual society and the incorporation of English as a medium of instruction in higher education, exploring how morphological awareness influences reading comprehension among criminology students becomes inherently significant. This study seeks to bridge this gap by examining the morphological awareness levels and reading comprehension proficiency among third-year criminology students enrolled in the Purposive Communication class.

Addressing this research gap becomes imperative in enhancing the academic support and instructional strategies tailored to the specific needs of criminology students. Consequently, this study aims to contribute to the literature on morphological awareness and reading comprehension, offering insights that are pertinent not only to the Philippine context but also to the broader discourse on language acquisition and proficiency among specialized student populations.

More specifically, it sought to answer the following research questions:

- What is the level of morphological awareness among third-year criminology students in Purposive Communication class?
- What is the overall proficiency level of reading comprehension among third-year criminology students in Purposive Communication class?
- Is there a statistically significant correlation between the morphological awareness levels and reading comprehension abilities of third-year criminology students?

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## **2. Material and methods**

### **2.1. Research Design**

The current study employed a quantitative correlational research design, focusing on investigating the relationships between morphological awareness and reading comprehension among third-year criminology students. This design allowed for the systematic exploration of potential correlations between these key variables, providing valuable insights into the intricate dynamics of language skills within the context of criminology education.

### **2.2. Research Locale**

The research locale for the present study was the Initao College (IC) situated in Misamis Oriental, Philippines. Initao College is characterized as higher education institution that caters to the educational needs of the local community.

### **2.3. Research Participants**

The participants in this study consisted of 238 third-year criminology students who were currently enrolled in the first semester of the academic year 2023-2024. These students, representing a significant portion of the third-year cohort in the criminology program, would serve as the primary focus of the research. Their involvement and responses would contribute valuable data to the investigation into the relationship between morphological awareness and reading comprehension among criminology students.

## 2.4. Research Instrument

The research instrument for this study was a structured questionnaire designed to gather data on morphological awareness and reading comprehension among third-year criminology students. The questionnaire was divided into two main parts, each focusing on specific aspects of the research objectives.

### 2.4.1. Part I: Morphological Awareness Questions

This section aimed to assess the participants' morphological awareness by presenting them with a series of questions related to the structure and meaning of words. The questions in Part I were carefully crafted to gauge the participants' understanding of morphemes and their ability to recognize and manipulate word structures.

### 2.4.2. Part II: Reading Comprehension Questions

This section focused on evaluating the participants' reading comprehension skills. It included a reading passage followed by questions that assess their understanding, interpretation, and application of information from the passage. The questions were designed to cover various aspects of reading comprehension, such as identifying main ideas, making inferences, and drawing conclusions.

The questionnaire was carefully structured to align with the research questions and objectives, ensuring that the data collected will provide insights into the relationship between morphological awareness and reading comprehension among third-year criminology students. The inclusion of both morphological awareness and reading comprehension questions in a single instrument allowed for a comprehensive assessment of the participants' language skills and their application in the context of criminology education.

## 2.5. Data Gathering Procedure

The data gathering procedure for this study involved seeking permission from the program dean and vice president for academic affairs of the criminology program. Once approval was obtained, the students would be informed about the research, ensuring transparency, and obtaining their consent for participation. The questionnaire, designed to assess morphological awareness and reading comprehension, would be administered using Google Forms to facilitate efficient and organized data collection. The collected responses would be exported into an Excel file for systematic organization and preprocessing. The data analysis phase would be carried out using statistical software, specifically Excel and Jamovi, to conduct a thorough examination of the relationship between morphological awareness and reading comprehension among third-year criminology students. This comprehensive procedure ensured ethical considerations, participant consent, and robust data analysis to derive meaningful insights from the study.

## 3. Results and discussion

In this chapter, the study's findings and subsequent discussions were presented, providing a comprehensive analysis of the data collected.

**Table 1** Level of Morphological Awareness

Scores	f	%	Descriptor
1-4	77	32%	Poor
5-6	74	31%	Mediocre
7-8	56	24%	Good
9-10	31	13%	Excellent
Total	238	100%	

The morphological awareness test conducted on third-year criminology students in the Purposive Communication class aimed to assess their proficiency in understanding morphological structures within a given context. The results, categorized into Poor, Mediocre, Good, and Excellent levels, revealed distinctive patterns in students' performance.

At the Excellent level, only 13% of students demonstrated a high level of morphological awareness. This group excelled in areas related to morphological structural awareness, specifically compounding morphemes and derivation. Notably, they had minimal mistakes in morpheme identification and decomposition tests, showcasing a strong grasp of these concepts.

The majority, comprising 31% of students, fell into the Mediocre level. These students were able to answer about half of the questions correctly, indicating a moderate level of proficiency. The most challenging aspect for this group was adding suffixes, suggesting a specific area for improvement in morphological awareness.

The Good level, encompassing 24% of students, reflected a solid understanding of morphological concepts. While likely to answer the bulk of questions correctly, these students struggled with more complex topics such as modifying grammar. This indicates a need for further development in handling intricate morphological structures.

The Poor level, comprising 32% of students, faced significant challenges in morphological awareness. This group showed little success in the morphological awareness test, answering only a few questions correctly. The specific difficulty for this group lay in morphological identification.

Thus, the morphological analysis conducted on third-year criminology students in the Purposive Communication class yielded valuable insights into the intricacies of their language proficiency. Through a meticulous examination of individual test items, it becomes evident that the students exhibited varying levels of morphological awareness. This categorization laid the groundwork for a nuanced exploration of students' performance on specific items designed to assess their grasp of morphological constructs.

In the examination of individual items, Question 1, which probed understanding of "discreetly," revealed a moderate proficiency level, as 52.8% of students successfully identified the adverbial form derived through morphological modification. Similarly, Question 2 delving into "surveillance" demonstrated a commendable 72.6% accuracy, showcasing a robust comprehension of morphological components such as prefixes and suffixes. Question 3, centered on the term "intruder," evidenced a high level of morphological acumen, with 75% accurately associating the word with its root and suffix. Conversely, Question 4, exploring "disabling," revealed a moderate difficulty level, with 44.4% of students correctly discerning the morphological intricacies of the term. Question 5, investigating the term "meticulous" in relation to the careful and precise nature of entry and exit, showed a moderate proficiency level, with 52.1% of students correctly identifying this descriptive term. This suggests a reasonable grasp of complex adjectives without extensive morphological modifications.

Moving forward, Question 6, examining the morphological implications of "forensic," showcased a particularly strong performance, with 70.5% of students adeptly connecting the term to in-depth investigation techniques. However, Question 7, centered on the term "cryptic," revealed a moderate level of difficulty, as 45.8% of students correctly identified this term, indicating challenges in recognizing words with abstract or obscure morphological origins.

Question 8, exploring the term "employing" in the context of analyzing surveillance footage, displayed a moderate level of proficiency, with 47.9% of students correctly associating the term with the team's approach. This underscores a reasonable understanding of morphological components related to verb forms. However, Question 9, centered on "premises," revealed a lower level of morphological awareness, as only 33.7% correctly identified the term, indicating possible challenges in recognizing plural forms.

Finally, Question 10, assessing the morphological structure of "perpetrator," demonstrated a robust performance, with 69.8% of students correctly associating the term with someone who commits a crime. This outcome underscores a strong understanding of morphological components and their contribution to meaning.

The overall difficulty rating indicated that a majority of students perceived the morphological identification test as challenging (63.2%), emphasizing the necessity for targeted instructional interventions. These findings emphasize the importance of addressing challenges in adding suffixes, modifying grammar, and enhancing morphological identification skills to improve overall morphological awareness among students.

**Table 2** Level of Reading Comprehension Proficiency

Scores	f	%	Descriptor
1-4	118	50%	Poor
5-6	71	30%	Mediocre
7-8	37	16%	Good
9-10	12	5%	Excellent
Total	238	100%	

The reading comprehension test conducted on third-year criminology students provides insight into their proficiency in understanding a given passage. The results, categorized into Poor, Mediocre, Good, and Excellent levels, exhibit distinct patterns in students' performance.

At the Excellent level, only 5% of students demonstrated a high level of reading comprehension proficiency. This group excelled in comprehending the nuances of the passage, showcasing a strong ability to extract detailed information and infer meanings beyond surface-level content.

The majority, comprising 30% of students at the Mediocre level, showed a moderate level of proficiency. These students were able to answer about half of the questions correctly, indicating a reasonable understanding of the passage but with room for improvement in certain areas.

The Good level, encompassing 16% of students, reflected a solid understanding of the passage. While likely to answer the bulk of questions correctly, these students faced challenges in some areas, suggesting a need for further development in specific aspects of reading comprehension.

The Poor level, comprising 50% of students, faced significant challenges in reading comprehension. This group showed little success in the test, answering only a few questions correctly, indicating a struggle to extract meaningful information from the passage.

The reading comprehension test evaluated the proficiency of third-year criminology students in understanding a given passage titled "Police Report: The Mysterious Break-In." The results, categorized into four levels—Poor, Mediocre, Good, and Excellent—reveal distinct patterns in students' performance.

In Question 1, which queried the unusual aspect of the break-in according to the police report, 33.5% of students correctly identified that the intruder disabled the security systems easily. This suggests a moderate proficiency level in comprehending details related to the method of entry employed by the intruder.

Question 2, exploring why the police suspected an inside job or involvement of a sophisticated criminal group, demonstrated a commendable 52.8% accuracy. Students who selected the correct answer recognized the significance of the intruder leaving cryptic symbols, showcasing a robust comprehension of subtle details and implications in the passage.

Moving to Question 3, which inquired about the action urged by the police department in the report, only 26.4% of students correctly identified the call to come forward with information. This indicates a lower level of proficiency in understanding the passage's explicit call to action.

Question 4, addressing why the police report termed the break-in as "mysterious," exhibited a relatively high accuracy of 51.8%. Students recognized the ambiguity associated with the discreet nature of the break-in, showcasing an ability to grasp implied meanings in the passage.

In Question 5, examining the kind of knowledge the intruder seemed to possess, 43.3% of students correctly identified security system disabling expertise. This suggests a moderate level of proficiency in understanding the specialized skills implied in the passage.

Question 6, focusing on the primary investigation focus of the police department, revealed a moderate proficiency level, with 42.3% correctly identifying the analysis of surveillance footage as the key focus. This indicates an ability to discern the central investigative strategy outlined in the passage.

Considering Question 7, which addressed the role of cryptic symbols in the investigation, 45.4% of students correctly identified their significance in suggesting a motive beyond burglary. This demonstrates a reasonable comprehension of the passage's implication that the symbols contribute to the investigation's complexity.

Moving to Question 8, examining why the police suspected an inside job or involvement of a sophisticated criminal organization, 43.7% of students correctly associated this suspicion with the presence of cryptic symbols. This underscores an adequate understanding of the passage's subtle cues.

In Question 9, assessing the measures the police are taking to solve the case, a high accuracy rate of 74.6% was observed. Students correctly identified the focus on analyzing surveillance footage and employing advanced forensic techniques, indicating a strong understanding of the investigative methods described in the passage.

Finally, Question 10, addressing what the police found perplexing about the break-in, exhibited a relatively high accuracy of 48.9%. Students recognized the perplexity in the easy entry and exit of the intruder, showcasing an ability to identify key details contributing to the mysterious nature of the incident.

In summary, the item-by-item analysis highlights varying levels of proficiency among students in comprehending the nuances of the passage. While some questions demonstrated a commendable understanding, others revealed areas where students may benefit from targeted instructional interventions to enhance their reading comprehension skills. The overall difficulty rating, with a majority perceiving the test as difficult, underscores the need for focused efforts in improving reading comprehension abilities among the student cohort.

**Table 3** Average of Morphological Awareness Level and Reading Comprehension Proficiency

Statistics		Morphological Awareness	Reading Comprehension
N	Valid	238	238
	Missing	0	0
Mean		5.63	4.67
Mode		6.00	5.00
Std. Deviation		2.406	2.215

The descriptive statistics provided for the morphological awareness and reading comprehension tests offer quantitative insights into the overall performance of the third-year criminology students. The mean and mode values for each test shed light on the central tendencies and distribution patterns within the dataset.

For the morphological awareness test, the mean score is calculated at 5.63, indicating the average performance across all students. The mode, which stands at 6, suggests that the most frequently occurring score is 6. This implies that a substantial proportion of students achieved a score of 6, contributing to the mode's prominence in the distribution. The standard deviation of 2.406 reflects the degree of variability or dispersion of scores around the mean. This indicates a moderate level of spread in the dataset, signifying a certain degree of heterogeneity in students' morphological awareness scores.

Moreover, the reading comprehension test exhibits a lower mean score of 4.67, suggesting a comparatively lower overall performance in understanding the provided passage. The mode of 5 indicates that the most frequently occurring score is 5, reflecting a central tendency towards the middle of the scoring range. The standard deviation of 2.215 indicates a moderate level of variability in reading comprehension scores, similar to the morphological awareness test.

The correlation analysis between morphological awareness and reading comprehension scores among third-year criminology students reveals a **statistically significant relationship** between the two variables. The Spearman's rho correlation coefficient of .530\*\* indicates a moderate positive correlation. This signifies that as scores in morphological

awareness increase, there is a corresponding increase in reading comprehension scores, and vice versa. The correlation is deemed significant at the 0.01 level (2-tailed), emphasizing the robustness of the observed relationship.

**Table 4** Correlation between Morphological Awareness Level and Reading Comprehension Proficiency

Correlations			Reading Comprehension
Spearman's rho	Morphological Awareness	Correlation Coefficient	0.530**
		Sig. (2-tailed)	0.000
		N	238
**. Correlation is significant at the 0.01 level (2-tailed).			

The positive correlation aligns with the patterns identified in the individual analyses of morphological awareness and reading comprehension. It suggests that students who exhibit higher proficiency in morphological awareness tend to perform better in reading comprehension. This is consistent with the notion that a strong understanding of word structures, derivations, and morphological components contributes to enhanced comprehension of written passages.

In summary, the statistically significant positive correlation between morphological awareness and reading comprehension underscores the interdependence of these linguistic skills. These findings have implications for instructional strategies, suggesting that interventions targeting improvements in morphological awareness may concurrently enhance reading comprehension abilities among third-year criminology students.

#### 4. Conclusion

This study on morphological awareness and reading comprehension among third-year criminology students reveals varied proficiency levels. Students demonstrated differing competencies in understanding morphological structures, with some excelling in compounding morphemes while facing challenges in suffix addition and morpheme identification. Similarly, their reading comprehension abilities varied, with some displaying strong inference skills while others struggled with extracting explicit information from passages. The analysis established a significant positive moderate correlation between morphological awareness and reading comprehension, suggesting that improved understanding of word structures can enhance comprehension skills. Future studies may explore broader student populations, consider mixed-method research designs, and investigate the impact of targeted instructional interventions to further refine teaching strategies for enhanced linguistic proficiency among criminology students.

#### Compliance with ethical standards

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##### *Disclosure of Conflict of interest*

The authors of this manuscript affirm that they have all contributed substantially to the development and writing of this research article. We declare that there is no conflict of interest associated with the content presented herein.

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