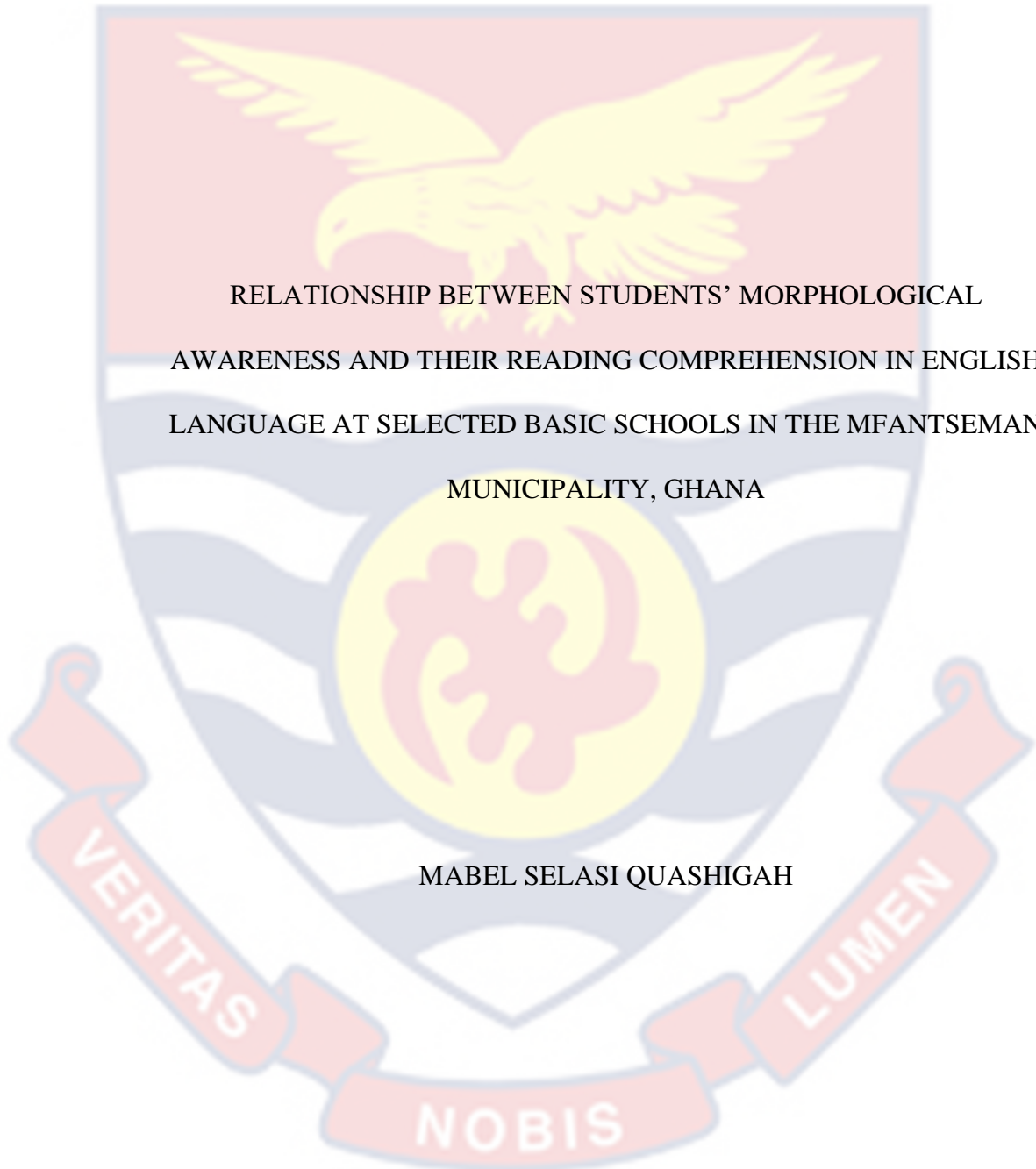


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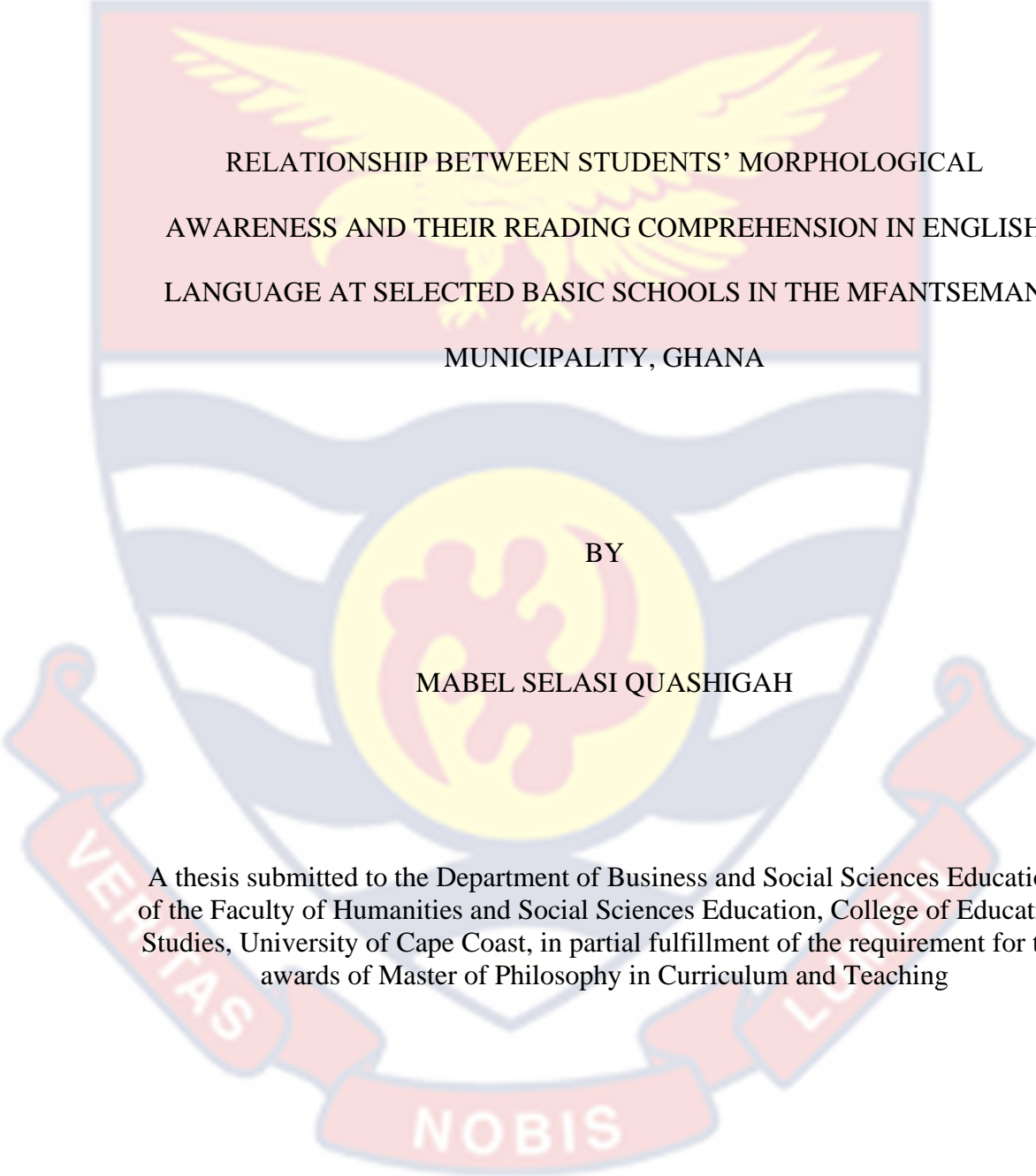


RELATIONSHIP BETWEEN STUDENTS' MORPHOLOGICAL
AWARENESS AND THEIR READING COMPREHENSION IN ENGLISH
LANGUAGE AT SELECTED BASIC SCHOOLS IN THE MFANTSEMAN
MUNICIPALITY, GHANA

MABEL SELASI QUASHIGAH

2021

UNIVERSITY OF CAPE COAST



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BY

MABEL SELASI QUASHIGAH

A thesis submitted to the Department of Business and Social Sciences Education
of the Faculty of Humanities and Social Sciences Education, College of Education
Studies, University of Cape Coast, in partial fulfillment of the requirement for the
awards of Master of Philosophy in Curriculum and Teaching

DECEMBER 2021

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been submitted for another degree in this university or elsewhere.

Candidate's Signature.....Date.....

Name: Mabel Selasi Quashigah

Supervisor's Declaration

I hereby declare that the preparation and presentation of this thesis was supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Supervisor's Signature:.....Date:.....

Name: Dr. Isaac N. Mwinlaaru

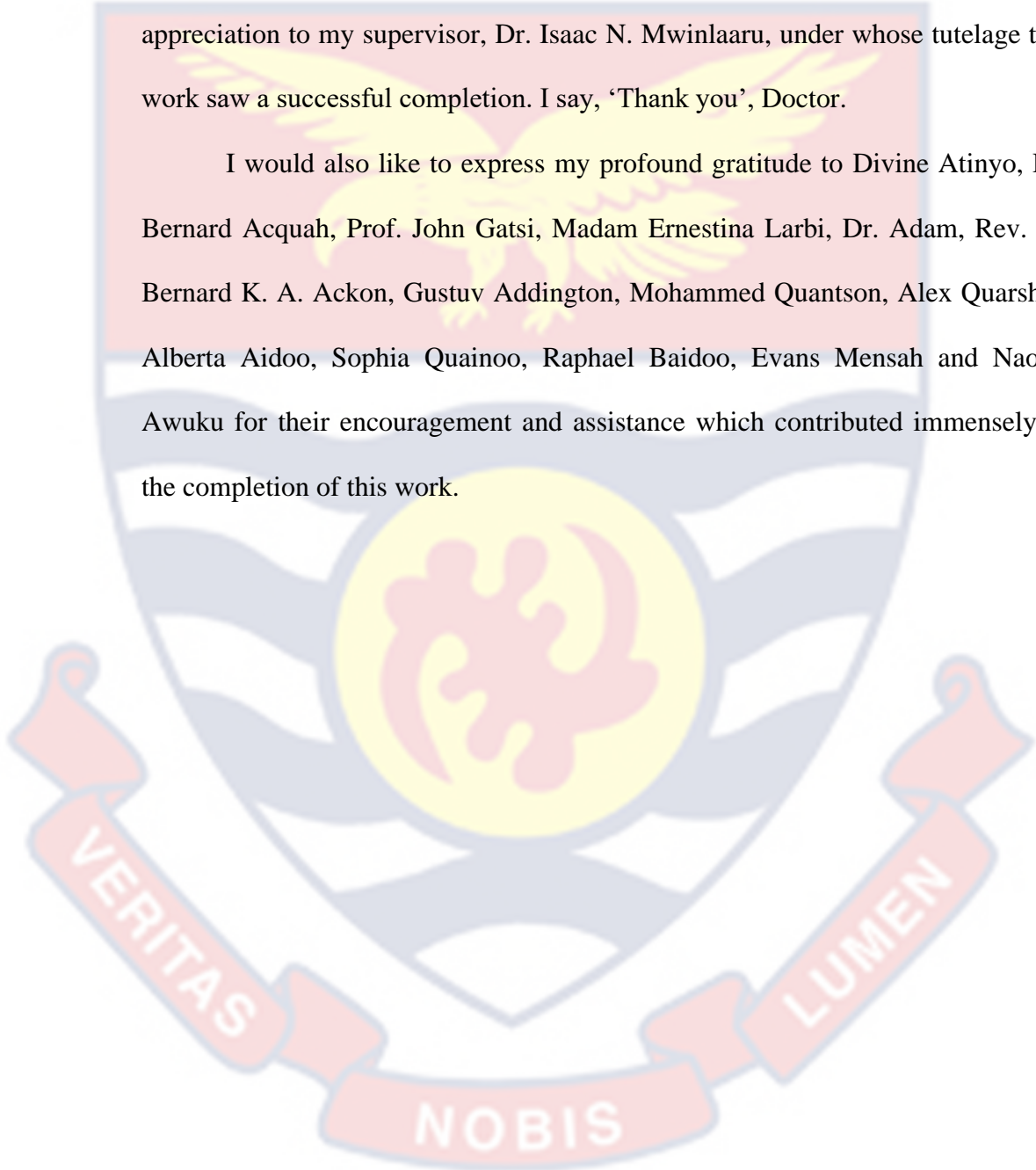
ABSTRACT

There have been grievances by educational stakeholders that the standard of English in Ghana is falling at all levels of education in the country. Studies conducted to assess the link between morphological awareness and reading comprehension among students in Ghana are scanty; especially, among basic school students. The present study examined the relationship between morphological awareness and reading comprehension among basic school students in the Mfantseman Municipality of Ghana. The study was quantitative in nature, and employed the correlational research design. The proportional random sampling technique was used to select 317 participants from 14 basic schools in the Mfantseman Municipality. The Comprehension Achievement Test (RCAT) and the Morphological Awareness Test were used to collect data from the participants. Two-independent sample t-test, and the Pearson product-moment correlation coefficient were used to analyse the data. No statistically significant difference in morphological awareness of male and female students was found. Also, no statistically significant difference between male and female students, with respect to reading comprehension, was revealed. Finally, a statistically significant positive relationship was found between morphological awareness and reading comprehension. It was concluded that male and female students were not different relative to competence in morphology and reading comprehension. It was then recommended that teachers should give equal attention to both genders. Suggestions were made for further studies.

ACKNOWLEDGEMENTS

I thank all those who, in diverse ways, contributed to the successful completion of this work. I particularly extend my warmest and sincere appreciation to my supervisor, Dr. Isaac N. Mwinlaaru, under whose tutelage this work saw a successful completion. I say, 'Thank you', Doctor.

I would also like to express my profound gratitude to Divine Atinyo, Dr. Bernard Acquah, Prof. John Gatsi, Madam Ernestina Larbi, Dr. Adam, Rev. Fr. Bernard K. A. Ackon, Gustuv Addington, Mohammed Quantson, Alex Quarshie, Alberta Aidoo, Sophia Quainoo, Raphael Baidoo, Evans Mensah and Naomi Awuku for their encouragement and assistance which contributed immensely to the completion of this work.



DEDICATION

To my husband, Alex Asante; and children, Alex Agyemang Asante Jnr, Annabel
Eyram Owusua Asante, Patience Tamakloe and Raphael Dziedzorm Quashigah



TABLE OF CONTENTS

	Page
DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
DEDICATION	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER ONE: INTRODUCTION	
Background to the Study	1
Statement of the Problem	5
Purpose of the Study	7
Research Objectives	7
Research Hypotheses	8
Significance of the Study	8
Delimitation	9
Organisation of the Study	10
Chapter Summary	10
CHAPTER TWO: LITERATURE REVIEW	
Theoretical Framework	12
Conceptual Review	17
Empirical Review	23
Conceptual Framework	45

Chapter Summary 46

CHAPTER THREE: RESEARCH METHODS

Introduction 47

Research Paradigm/Approach 47

Research Design 48

Study Area 49

Population 50

Sample Size and Sampling Procedure 51

Data Collection Instrument 52

Instrument Validity 54

Instrument Reliability 55

Data Collection Procedure 56

Data Processing and Analysis 57

Ethical Considerations 58

Field Challenges 58

CHAPTER FOUR: RESULTS AND DISCUSSION

Introduction 59

Socio-Demographic Information on Students 59

Classification of Students' Performance 61

Descriptive Statistics on Morphological Awareness and Reading Comprehension 62

Morphological Awareness and Gender 64

Reading Comprehension and Gender 69

Morphological Awareness and Reading Comprehension 73

Chapter Summary 76

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND

RECOMMENDATIONS

Introduction 80

Summary 80

Key Findings in Relation to Research Objectives 82

Implications of the Study 83

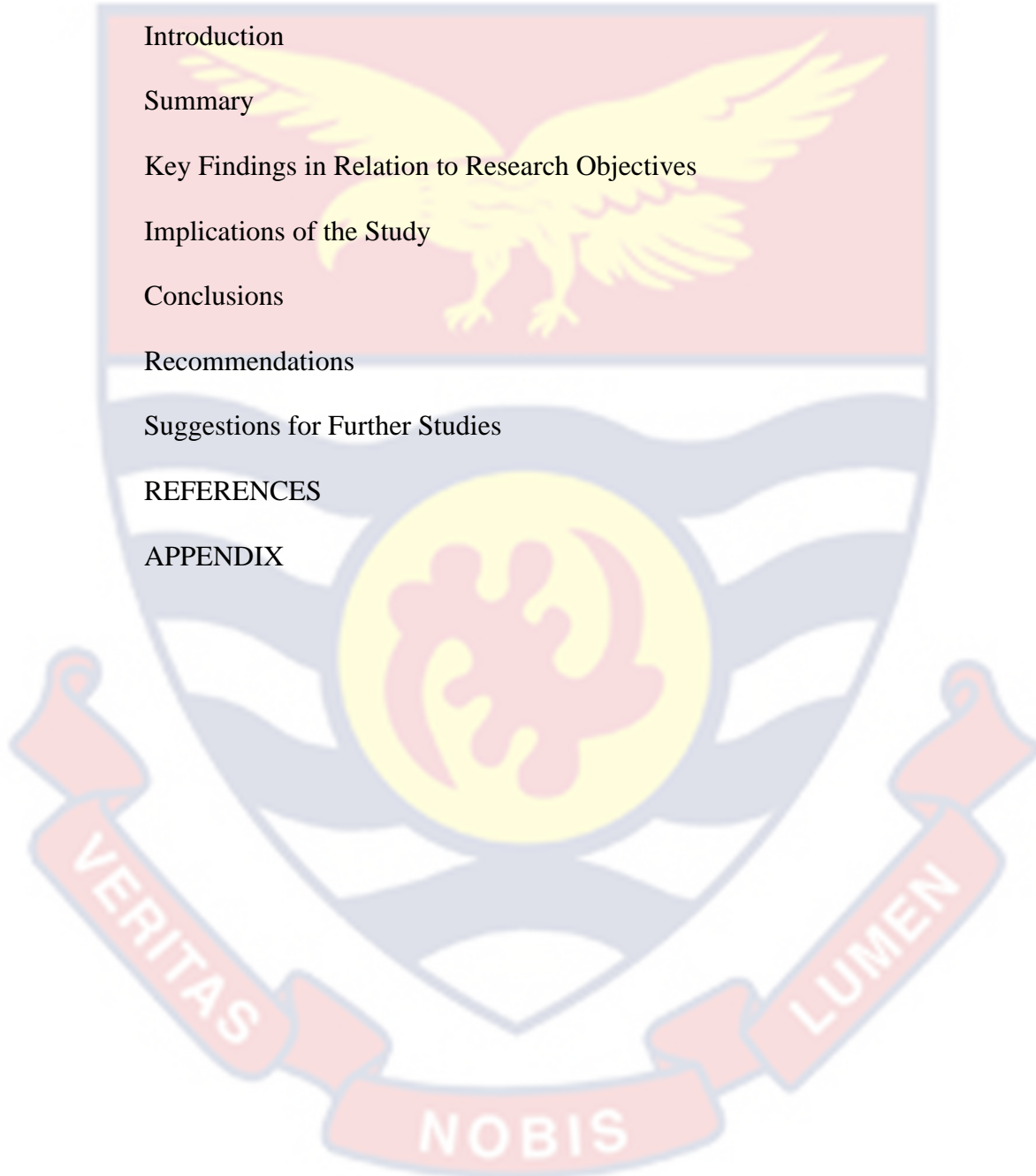
Conclusions 87

Recommendations 87

Suggestions for Further Studies 88

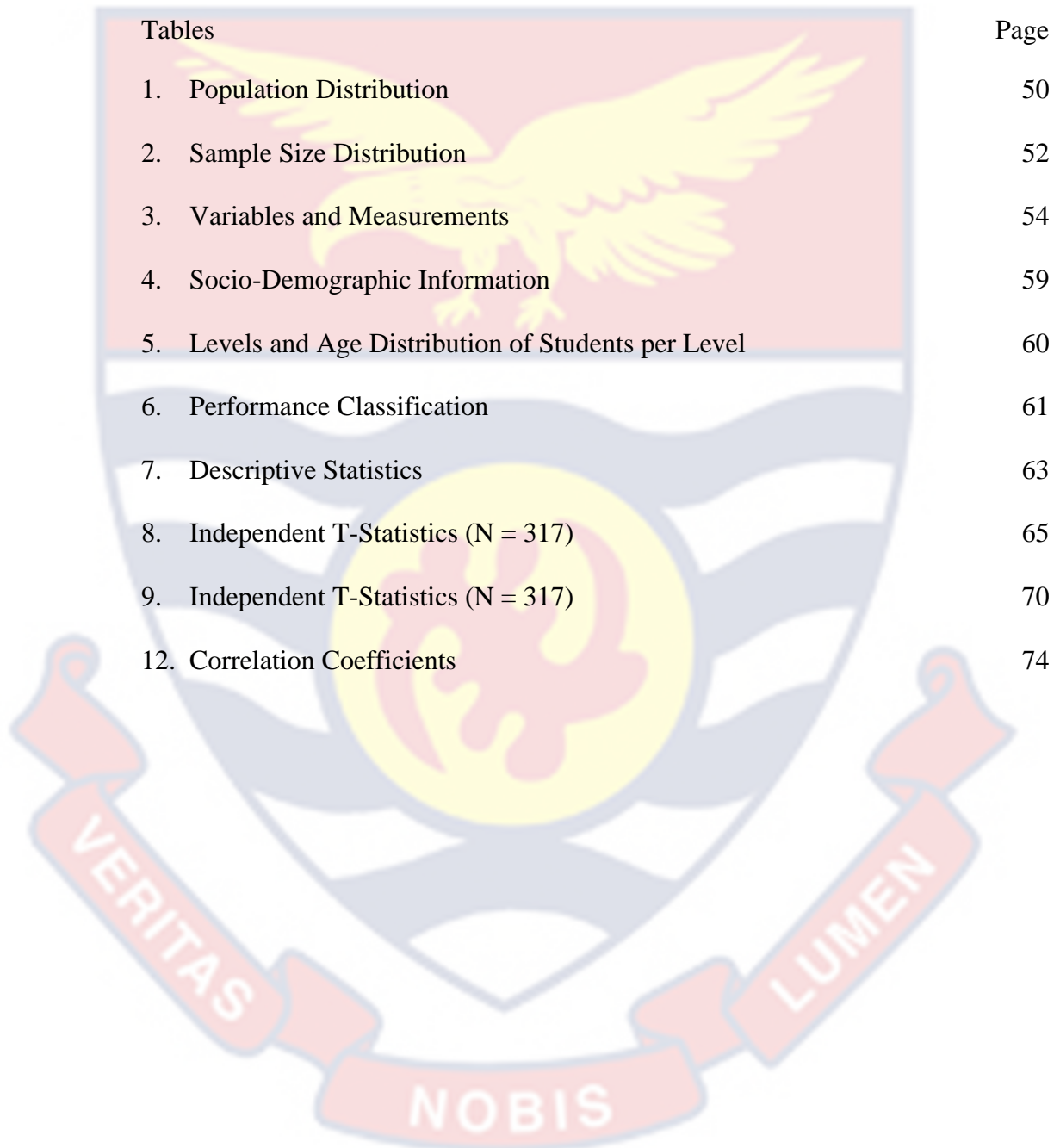
REFERENCES 90

APPENDIX 101



LIST OF TABLES

Tables	Page
1. Population Distribution	50
2. Sample Size Distribution	52
3. Variables and Measurements	54
4. Socio-Demographic Information	59
5. Levels and Age Distribution of Students per Level	60
6. Performance Classification	61
7. Descriptive Statistics	63
8. Independent T-Statistics (N = 317)	65
9. Independent T-Statistics (N = 317)	70
12. Correlation Coefficients	74



LIST OF FIGURES

Figure	Page
1. Conceptual framework	46



CHAPTER ONE

INTRODUCTION

The English language is very important to the education system of Ghana, as it has been the main medium of instruction across all levels of education. Considering this, a study related to students' competence in the English language at the basic school level is important. The present study focused on the relationship between students' morphological awareness and reading comprehension at selected basic schools in the Mfantseman Municipality of Ghana. This chapter presents the background to the study, statement of the problem, purpose of the study, study objectives, study hypotheses, significance of the study, definition of key terms, delimitation, limitations, organisation of the study, as well as a chapter summary.

Background to the Study

In recent years, there have been grievances that the standard of English in Ghana is falling at all levels of education in the country. It is not surprising that students might not be as comfortable with the English language as they were some years ago (Asemanyi, 2015). There has also been evidence that the morphological awareness and reading comprehension, usually measured in terms of test scores obtained in English language, has been alarmingly falling (Asemanyi, 2015; Owusu-Acheaw, 2014; Ghana Education Service, 2020). For students in the basic schools, the English language is one of the core subjects they are required to pass to enable them enter second cycle institutions. Failure in the

subject has caused a score of basic school graduates to be denied admission into high schools. This means, most of these students would have to rewrite the subject if only they really wanted to go to high school.

Further, as a result of research in the fields of psycholinguistics, sociolinguistics and socio-semantics, researchers are developing increased interest in the communicative properties and competence of language use (Yemeh, 2007; Bataineh, Bataineh, & Thabet, 2011; Remache, 2016;). Notably, attention has been revolving around morphological awareness and reading comprehension in the English language (Jones, 2003; Afful, 2007; van de Werff, 2020; Remache, 2016). Morphological awareness has been variously defined by scholars in the field of language and linguistics. For instance, Jones (2003) termed morphological awareness as the ability or the knowledge of an individual to apply understanding of how words are formed, and their relationship to other words in the same language.

Morphological awareness has also been simply referred to as an understanding of how words can be broken down into smaller units of meaning such as base or roots, prefixes and suffixes (Tighe, & Binder, 2015). In some instances, morphological awareness is defined to include knowledge of simple parts of speech (Akbulut, 2017). On the other hand, reading comprehension has been defined as the ability of an individual to demonstrate knowledge of processing texts, understanding their meaning, and integrating them with what the individual already knows (Theobald, 2016).

It thus can be inferred that morphological awareness and reading comprehension, to some extent, are related (Xi, 2010). For an individual to be able to read proficiently, there should be prior knowledge on how words are formed and this knowledge is drawn from morphological awareness (Ellis, 2008; Castles, Rastle, & Nation, 2018). Also, reading comprehension has been linked to performance and competence in other disciplines outside the English language (McArthur, Konold, Glutting, & Alamprese, 2010; Castles et al., 2018).

The relationship between morphological awareness and reading comprehension has been debated (Purpura, 2014; Tighe, & Binder, 2015). Some proponents assert that morphological awareness contributes to reading comprehension (Ambridge, 2012), as others are of the view that morphological awareness is necessary but not enough for mastering reading comprehension (Wilson-Fowler, & Apel, 2015). Thus, more studies are needed to unravel the actual association between these two concepts.

The present study contributes to the existing literature in this regard, as the prior discussions point to the fact that some level of connection can be inferred between morphological awareness and reading comprehension. It should also be stated that prior empirical studies, which relate to morphological awareness and reading comprehension, brought forth diverse findings. For instance, Ellis (2008) shows that grammatical awareness is related to reading proficiency, though a positive relationship is not established between grammatical awareness and reading proficiency.

Ellis' (2008) assertion is more like morphological awareness optimises reading comprehension among students, just as other researchers have established (Hulstijn, Schoonen, de Jong, Steinel, & Florijn, 2012; Stoffelsma et al., 2020).

Other studies also acknowledged the importance of morphological awareness in assessing reading comprehension (Wilson-Fowler, & Apel, 2015; van de Werff, 2020). Nevertheless, these studies were done in different contexts from the present study; thus, the differences in educational and economic systems could impact the findings.

Prior studies have also suggested that gender could influence language competence (Zarevski, Kovač, & Matešić, 2014; Okonkwo, 2014). I define gender in this study according to biological sex. Both morphological awareness and reading comprehension are assessed at the individual level, and the possibility of gender influencing morphological awareness and reading comprehension in English language among students cannot be taken for granted. Gender, according to Taboada (2004), is the relationship between men and women, both perception and material; gender is neither biological nor has anything to do with sexual characteristics of either men or women. Gender is simply a social construction which is a range of characteristics pertaining to, and differentiates between masculinity and femininity (Lightfoot, & Harmer, 2007).

According to Lakoff (1975), women's knowledge or performance in language can potentially be distinguished from that of men in different ways. Considering this, morphological awareness and reading comprehension in English language can be said to be influenced by the gender of the individuals being

studied. As some studies showed females to have performed better in language related disciplines than their male counterparts, others found the reverse to be the case (Bijami, Kashef, & Khaksari, 2013; Okonkwo, 2014). However, morphological awareness in the English language with respect to gender, and reading comprehension in the English language with respect to gender have not been explored in Ghana (Latifa, 2018; Mwiigi, 2014; Adigun, Onihunwa, Irunokhai, Sada, & Adesina, 2015).

The paucity of studies on morphological awareness and reading comprehension in the English language, taking into consideration gender, can be said to be a contributory factor to the continuous poor performance among students as it is difficult to appreciate the magnitude of the problem without findings from empirical studies (see e.g., Owusu-Acheaw, 2014; Arhin, & Offoe, 2015).

Statement of the Problem

After having an encounter with students from the basic schools, especially the junior high students, in the Mfantseman Municipality of Ghana, it was realised that as some of these students demonstrated good sense of morphological awareness – in their sentence constructions, and upholding of grammatical rules – others seemed to lose grasp of the concept of morphology. The issue was not different after considering reading comprehension in English language among these students. A similar phenomenon was confirmed by some previous studies which considered achievement in general English among tertiary students (Waskita, 2008; Latifa, 2018). However, it became difficult to comprehend when

those who seemed to lose grasp of morphology demonstrated good performance in reading comprehension in the English language. This made it difficult to infer any form of relationship between morphological awareness and reading comprehension in English language.

To make issues even more complicated, there seemed to be gender element which could be a possible influence on morphological awareness in the English language among basic school students in the Municipality. This holds for their reading comprehension in the English language as well. Considering all these, it is obvious a study is needed to address this issue, and also help know which aspects of the English language basic school teachers need to focus on in order to achieve overall competence in the English language among the basic school students in the Municipality and beyond.

However, most of the past studies which considered students' awareness and performance in disciplines focused on Mathematics, and mostly considered high school and university students (Arhin, & Offoe, 2015; Stoffelsma et al., 2020;). Also, even the prior studies which considered English language focused on aspects such as spelling, vocabulary, concord and grammar found in essay writing (Appiah, 2002; Afful, 2007; Flor, Klebanov, & Sheehan, 2013; Mireku-Gyimah, 2014; Adika, & Borti, 2015), or just on tertiary students (Stoffelsma, Spooren, Mwinlaaru, & Antwi, 2020), paying no attention to junior high school students and gender.

It, therefore, obviously appears that morphological awareness and reading comprehension in English language, giving cognisance of gender, has not really

been explored in the literature; especially, among basic school students. This situation motivated the present study to fill this gap by examining the relationship between morphological awareness in the English language and reading comprehension in the English language among basic school students in the Mfantseman Municipality of Ghana. Further, this study considered the level of morphological awareness and reading comprehension in the English language among basic school students, with respect to gender.

Purpose of the Study

The purpose of the study was to assess the relationship between morphological awareness and reading comprehension in the English language of students at basic schools in the Mfantseman Municipality of Ghana, giving attention to gender. This assessment was to achieve how morphological awareness relates to reading comprehension competence of students, as well as realise how different male students are from female students, in terms of their level of morphological awareness and reading comprehension.

Research Objectives

Specifically, the study sought to find out:

1. whether there is a difference in morphological awareness in English language among students at basic schools in the Mfantseman Municipality of Ghana with respect to gender.
2. whether there is a difference in performance in reading comprehension in the English language among students at basic schools in the Mfantseman Municipality of Ghana based on gender.

3. If there is a relationship between morphological awareness and reading comprehension in the English language of students at basic schools in the Mfantseman Municipality of Ghana.

Research Hypotheses

The following hypotheses were formulated and tested to guide the study.

1. H₀: There is no statistically significant difference in morphological awareness in the English language among students at basic schools in the Mfantseman Municipality of Ghana with respect to gender.
2. H₀: There is no statistically significant difference in reading comprehension in the English language among students at basic schools in the Mfantseman Municipality of Ghana with respect to gender.
3. H₀: There is no statistically significant relationship between morphological awareness and reading comprehension in the English language of students at basic schools in the Mfantseman Municipality of Ghana.

Significance of the Study

The significance of this study could be seen in two ways: theory and practice. Theoretically, the study would provide a some understanding of how gender influences morphological awareness as well as reading comprehension in the English language among basic school students. It would also add to the existing literature on gender, and morphological knowledge and reading comprehension in English for academic purposes.

Practically, curriculum and textbook developers, teachers, and students would benefit from the findings of this study. Curriculum and textbook

developers could use the findings of this study to guide the contents included in curricula and textbooks to ensure that no student group is left behind, as this study would bring to light, among other things, the English language competence levels of students. English language teachers would get to know the strengths and weaknesses of students in English language and thus help the teachers strategise their teaching practices in a way to support them.

Delimitation

The study was concerned with morphological awareness and reading comprehension of male and female basic school students in the Mfantseman Municipality of Ghana. In selecting the basic schools in the Municipality for the study, consideration was given to the fact that the schools are mixed in terms of gender, and therefore, would afford the researcher the opportunity to have access to both male and female performance in morphological awareness and reading comprehension. Also, the study considered basic schools in the Municipality as the study organisation.

Also, being aware of the numerous studies on students' competence and performance in the English language in general, I decided to limit the present study to morphological awareness and reading comprehension in the English language, and compare male and female's performance. This would distinguish the present work from existing studies and also contribute to language and gender as well as English for academic purposes. Also, only achievement tests answered by the basic school students would be considered.

Organisation of the Study

The study was organised in five chapters. The introduction, which is the Chapter One, highlighted the background to the study, statement of the problem, purpose of the study, objectives of the study, research hypotheses, significance of the study, delimitation of the study, challenges involved in the study, and finally, the chapter summary. In Chapter Two, the underpinning theories, concepts and related empirical studies were reviewed, and as well as, the conceptual framework was presented. Chapter Three discussed the research methods employed for this study. Chapter Four focused on the analysis and discussion of results. The final chapter, Chapter Five, concluded the thesis by highlighting the key findings, the implications of the findings, recommendations based on the findings and conclusions drawn, and suggestions for further research.

Chapter Summary

This chapter has provided a general context for the study by discussing the background that informed the study. The chapter went on to state the problem that the researcher sought to address, purpose of the study, objectives of the study, research hypotheses, significance of the study, definition of key terms, delimitations of the study, as well as organisation of the study. The next chapter presents the literature review of the study where the theory used for the research and empirical studies related to the study are discussed, as well as the conceptual framework.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter presents a review of literature on gender, morphological awareness and reading comprehension in English language among students at basic schools in the Mfantseman Municipality of Ghana. The chapter reviews related theories on gender and language. Also, the concepts – *gender*, *morphological awareness* in English, *reading comprehension* in English and *academic performance* – are discussed in detail. Review of previous studies is done, taking into consideration the study objectives.

Theoretical Framework

To situate this study, a number of theories have been applied. Though some of the theories and concepts do not directly relate to this study, they are adjusted to explain the concepts in this study. References are made to Lakoff's (1975) study on gender and language, Tannen's (1990) difference theory and the performativity theory developed by Baxter (2008). These theories are discussed below.

The Lakoff's theory

Lakoff's theory states that women's language can be distinguished from men's language in a number of ways (Lakoff, 1975). According to Lakoff, women's languages are different from that of men in several ways. Women tend to use hedges, such as "*sort of*", "*kind of*", and "*it seems like*", just to mention a few; empty adjectives, such as "*divine*", "*adorable*", and "*gorgeous*", among

others; super-polite forms, such as “*would you mind...*”, “*...if it's not too much to ask*”, “*Is it okay if...?*”; apologise more, “*I'm sorry, but...*”; speak less frequently; avoid curse expletives; use tag questions, such as “*You don't mind sleeping here, do you?*”; use hyper-correct grammar and pronunciation; use indirect requests, such as “*Wow, I'm very hungry*” – actually asking for food (Lakoff, 1975).

The theory tries to distinguish the difference that exist between males and females language and therefore it was employed for this study.

It can, thus, be inferred that men's performance in morphological awareness and reading comprehension and women's performance in morphological awareness and reading comprehension are different. Also, taking Lakoff's theory into consideration, one can draw a relationship between female students' morphological awareness and reading comprehension, as well as relationship between male students' morphological awareness and reading comprehension. Thus, the hypothesised relationship between morphological awareness and reading comprehension can be tested in the light of Lakoff's theory.

Difference theory

The difference theory focuses on intersex communication, where men and women are typically represented as two distinct cultural groups (Tannen, 1990). This is to say that, linguistically, male and female do not use the language the same way. Males have their own ways of doing things at a particular time, and females have their own ways of doing things at a particular time period (Mwiigi, 2013). This theory has strong ties to the dynamic, deficit, and dominance theories,

all of which have been discussed in the literature on language and gender (Jones, 2003).

The difference theory, as proposed by Tannen (1990), was often divided into six categories. In each category, males and females use language in opposition to one another. These categories illustrate the differences between men and women in terms of language preferences, communication styles, and conceptualization of many issues. These categories are *status versus support*, *advice versus understanding*, *information versus feelings*, *orders versus proposals*, *conflict versus compromise*, and *independence versus intimacy*. These categories are expounded below.

Status vs. support

According to Tannen (1990), men view the world as a competitive place where conversations and speeches are used to build status. On the other hand, females view the world as a network of connections where language is used to seek or offer support. She used the example of her husband and herself to illustrate her points. She recalled a time when her husband had employment in various locations and she would view any mention of it as sympathy or support. Her husband, on the other hand, saw the remarks as criticism and a means of holding him back. Men are more inclined to interrupt in order to make their points and achieve status, according to Tannen, who also noticed this. These, in Tannen's opinion, demonstrate the various approaches that men and women use in terms of status and support.

Advice vs. understanding

In this category, the difference between men and women regarding how they react to problems is presented. According to Tannen (1990), women usually seek comfort and sympathy when there are problems whilst men looks for solution to problems. This is shown in the way males communicate and understand issues. On the part of females, their way of communication or speech usually suggests their need for being comforted and being shown sympathy (Haliday,1970). This demonstrates that women are more understanding than males, who typically prefer to be listened to and are hence more of the advising kind. (Waskita, 2008).

Information vs. feelings

Considering this category, Tannen (1990) posited that males' conversations are usually message-oriented (i.e., based on communicating information). For women, conversations are much more important for developing or building relationships and strengthening social ties. This means that men do not really focus on emotions and feelings when communicating their messages; their focus is basically on the kind of information they want to put across. However, women tend to be emotional and, hence, take into consideration feelings, and usually focus on building lasting relationships (Jones, 2003).

Orders vs. proposals

According to Tannen (1990), men commonly use direct imperatives when talking to others. Direct imperatives used by men may include, for example, "Close the window", "Put off the light". On the other hand, women encourage the

use of polite forms, or superpolite forms (Zemach, & Rumisek, 2003), such as “Let’s”, “Would you mind if...”, just to mention but few. This shows that men like giving orders whilst women would rather make proposals in most cases. This is not to say men are not polite; this only shows the differences between the two separate cultures – men and women, as put forth by Tannen (Adigun et al., 2015).

Conflict vs. compromise

In terms of language, women want to avoid conflict at all costs, claims Tannen (1990), preferring to find peaceful solutions to differences. This is carried out in an effort to uphold connections and foster a good rapport. Men, on the other hand, are more likely to approach problems and arguments in a confrontational manner. This claim by Tannen is consistent with the argument made by Water and Ong in their 1981 book *Fighting for Life*, which claimed that “expressed adversativeness” is more prevalent in masculine culture than in female culture.

Independence vs. intimacy

The difference theory, in general terms, posits that men favour independence whilst women favour intimacy. This assertion was demonstrated by Tannen, citing a husband who makes decisions without consulting his wife because he does not want to lose independence. On the contrary, women like to consult with their partners, as this is considered as a show of intimacy of the relationship. According to Tannen (1990), women perceive the world as a web of links and interactions; hence, closeness is seen as a way to forge these connections while restraining the urge to project superiority. Men, on the other hand, see the world through the lens of status.

Considering the assertions of the difference theory, differences could be inferred from all aspects of life of males and females. In terms of language, men are considered to be more assertive compared to women. It, therefore, would not be surprising if male and female students at the basic schools in the Mfantseman Municipality produced different levels of performance in morphological awareness and reading comprehension achievement tests. Since males and females are stated by the difference theory to have been two separate cultures, it can then be said that male students' level of morphological awareness and reading comprehension in English language is likely to be different from that of their female counterparts'.

Conceptual Review

This section presents reviews of the concepts used in this study. These concepts are morphological awareness, reading comprehension, gender, and academic performance.

Morphological awareness

Morphological awareness, according to Tighe and Binder (2015), is concerned with how words can be broken down into smaller units of meaning, such as roots and suffixes, among others. Guo, Roehrig and Williams (2011) also defined morphological awareness as the explicit knowledge of the way in which words are built up by combining smaller meaningful units, such as prefixes, roots and suffixes. As could be seen in these two definitions, morphological awareness revolves around an individual's knowledge about smaller meaningful parts which come together to form a given meaningful word. Just as stated in these

definitions, prior scholars (Castles, Rastle, & Nation, 2018; Bastug, 2014) also mentioned knowledge of smaller meaningful units of prefixes, roots and suffixes as defining characteristics of morphological awareness.

The smaller meaningful units – prefixes, roots and suffixes – are known as morphemes which are defined as the smallest possible meaningful units of language (van de Werff, 2020). According to Wilson-Fowler and Apel (2015), when these smaller units are combined, more complex words can be formed. According to Castles et al. (2018), a reader's ability to understand words depends more on how they are analyzed than on their prior vocabulary knowledge when they employ their morphological knowledge or awareness. In this way, according to Castles et al. (2018) and van de Werff (2020), a reader would be able to comprehend words with complex morphology and words they have never encountered before.

Morphological awareness is believed to contribute immensely to vocabulary growth and reading comprehension (Ku, & Anderson, 2003). For instance, Nagy, Berninger and Abbott (2006) averred that morphology could be a very strong device to expedite the acquisition of polymorphic vocabulary items and improving the retention of such items. In similar manner, Carlisle and Stone (2005) posited that morphological awareness might be very important; specifically because morphological decomposition and problem-solving furnish individuals how to understand and learn the large number of derived words used in the books the individuals read.

Morphological awareness has been assessed differently by different authors. For instance, to evaluate the morphological awareness of study participants, Ku and Anderson (2003) employed Recognise Morphemes Test – testing of morphological relationships between pairs of words (e.g., indicating whether the word *teacher* comes from the word *teach*; where respondents are to choose between dichotomous response items of *Yes* or *No*); Discriminate Morphemes Test – determining whether participants understand that a word part may have different meanings in different complex words (e.g., *classroom*, *bedroom*, *mushroom*, etc. – the *room* in each word means a different thing); and Select Interpretations Tests – examining whether participants could apply their knowledge of morphology of compounds and derivatives to select proper interpretations of words (e.g., *rebuild* which is to be interpreted as *to build again*).

In another study, Carlisle (2000) employed the Test of Morphological Structure to measure participants' morphological awareness. This Test measures study participants' awareness of the associations of base and derived forms. The words used were transparent (the sound of the root word is intact in the derived form). Examples of these words include *reason* in *reasonable*, *grow* in *growth*, *perform* in *performance* and *fame* in *famous*, among others. Other authors also tested their study participants' morphological awareness by placing base words in sentences and asking participants to select the appropriate derived forms, usually in noun or adjectival forms, from a list of purported derived forms of the base words (Mohamed, Ismail, & Eng, 2011; Wilson-Fowler, & Apel, 2015).

In summary, it could be inferred from the discussion thus far that morphology is a very important device in language and linguistics, and the relevance of its awareness cannot be overemphasised; particularly, as far as the English language is concerned. Morphological awareness can be cited as a precursor to vocabulary development, understanding of both simple and complex words, and reading comprehension. It should also be mentioned that there are various ways of assessing morphological awareness, as stated in the foregoing, and the various ways identified in the literature showed high levels of validity and reliability (Carlisle, 2000; Carlisle, & Stone, 2005; Mohamed et al., 2011; Wilson-Fowler, & Apel, 2015). Therefore, further studies could adopt or adapt any of these tried and tested instruments to assess morphological awareness of study respondents.

Reading comprehension

Reading is, indisputably, one of the major ways to get information, and it also plays an important role in teaching and learning. Reading comprehension, according to Myers (2002), is a set of techniques for improving learners' success in extracting useful information or knowledge from texts. Reading involves strategies which indicate how readers conceive of a task, how they make sense out of what they read, and what they do when they do not comprehend (Castles et al., 2018; Wei, 2009). These strategies include skimming, scanning, contextual guessing, and reading for meaning, utilising background knowledge, recognising text structure, among others (Wilson-Fowler, & Apel, 2015; Castles et al., 2018). It should also be stated that, often, readers employ their own strategies based on

the kind of information they are looking for in a given passage, and it is possible these strategies might not relate to any of those aforementioned (Denton et al., 2014).

Regarding the measurement of reading comprehension, several approaches are available, and have been employed by many prior researchers. As some of the previous researchers conducted structured observations of students whilst students engaged in reading and study tasks (Fox, 2009), others examined physical evidence of strategies used by students in dealing with certain texts, such as underlined texts (Braten, & Samuelstuen, 2007). Some authors also used Gate-MacGinitie Reading Comprehension subset – which involves participants reading selected passages and responding to literal and inferential multiple-choice questions – and Contextualised Reading Strategy Survey, which measures self-reported reading comprehension and strategies of student study respondents (Denton et al., 2014).

Further, authors such as Arellano (2013) and Logan and Johnston (2010) used reading texts selected from different textbooks used for learning English language to assess students' reading comprehension. These reading texts are usually in passage forms, with instructions asking the study participants to respond to a list of comprehension questions based on the passage read (Arellano, 2013). Also, usually employed to evaluate reading comprehension is the Group Reading Test II developed by Macmillan Test Unit (2000) and the Reading Achievement Tests (Tighe, & Binder, 2015) which assess reading skills and understanding. The passages used come in variety of genres, such as fiction,

expository nonfiction, poetry, fables, folktales, biographical sketches, directions, essays, letters, interviews and editorials, among others (Bray, & Barron, 2004; Tighe, & Binder, 2015).

All in all, reading comprehension is a broad concept which has diverse approaches of measuring it. This is to say there is no one-fit-for-all approach universally accepted as a measure of reading comprehension, as all the widely used reading comprehension evaluation tools and approaches come with their own advantages as well as limitations. This notwithstanding, a researcher is still expected to settle on an appropriate measure, taking into consideration the study participants and the study context. Thus, a researcher may adopt, adapt or construct a new measurement, taking into account the aforementioned conditions – study participants and study context.

Concept of Gender

The word “*gender*” and “*sex*” have been used interchangeably. The difference between *gender* and *sex* has always been a topic for hot debates among scholars (Bijami et al., 2013). Nevertheless, it is common to see people use these two words when filling research questionnaires, medical documents and many other official paper works. This is because these words are simple and easy to use in describing basic characteristics of humans (Zarevski et al., 2014). That notwithstanding, the word “*sex*” has come to stay as the biological characteristics of being male or female, whilst “*gender*” only refers to the behavioural, social, and psychological features that characterise men and women (Zarevski et al., 2014). Thus, sex is biological and gender is social characteristics of human being.

According to Muto-Humphrey (2005), gender is one of the social classifications used to determine language used by people. The word “*gender*” obviously reveals the social and contextual expectations society places on part of each sex – male and female – both culturally and socially (Kamari, Gorjian, & Pazhakh, 2012). In general, gender has been considered as a social phenomenon. This is due to the drift from perceiving gender as an individual concept to perceiving it as a social construct (Aslan, 2009; Bijami et al., 2013; Kamari et al., 2012).

From the various definitions and explanations given to the word ‘*gender*’, it is obvious that it goes beyond just being male and female. This means that it has more to do with masculinity and femininity of an individual. As to whether an individual is considered masculine or feminine, society determines it. However, considering all these, everything still boils down to male and female, or being a man or woman as both the masculine and feminine characteristics are either ascribed to a male or a female, depending on how society perceives the individual. Thus, when society perceives a female to have behaved like a male, the masculine gender is ascribed to her, as males are usually perceived to be masculine as opposed to female femininity (Ahmadi, Maftoon, & Gholami, 2012). In the present study, the gender of participants is determined by biological sex.

Empirical Review

This section presents review of related studies. It should be pointed out that a number of studies have been conducted to assess the difference between male and female, with regards to performance in given fields and disciplines.

Performance in the English language is not left out. However, aspects of English, such as morphology and reading comprehension, taking cognisance of gender, have not been extensively explored by prior researchers. Thus, this section of the chapter presents reviews on morphological awareness and gender, reading comprehension and gender, and morphological awareness and reading comprehension.

Linguistic Competence and Gender

Several studies have been conducted to assess whether there is significant difference in academic performance, with respect to gender. Several disciplines, including the English language, have been looked at in such studies. However, prior research has not concentrated on a gender-related component of the morphology of the English language. An instance is Okonkwo (2014) who conducted a study to investigate the effects of gender, using collaborative instructional strategy, on students' performance in English essay writing. The study employed the quasi-experimental pretest posttest non-equivalent control group design. Results revealed that males performed better than females in the experimental group; but, females did better than their male counterparts, in the control group.

Though Okonkwo's (2014) study did not consider morphological awareness, the study still has an implication for the present study as gender was considered. This is to say that there is the likelihood of gender influencing the morphological awareness of students. This means that the present study is relevant to filling this lacuna in literature, as whether gender has significant influence on morphological awareness is going to be tested in the present study.

Further, the present study add a new perspective by considering basic school students (junior high students).

In another study to examine men's and women's ESL academic writing in their assignments at the University of Melbourne, Waskita (2008) carried out a study on the differences in men's and women's ESL academic writing. The methodical procedures used involved analysing the academic writing of three sets of men and women. Features focused in the analysis included syntactic complexity, means of integrating cited information, and methods of presenting arguments. The findings revealed significant differences between men's and women's texts in the aspects analysed. Women's texts structure was found to be more complex, compared to men's. Women were also found to have presented more organised arguments and, thus, have more advantage for success in academic writing.

Waskita's (2008) study, though considered academic writing, which obviously required appreciable knowledge in morphology to be properly carried out, and gender differences with regards to academic writing, the study did not specifically take into consideration morphological awareness with respect to gender. However, the study was able to bring out clearly the differences between male and female academic writing. The current study, therefore, focuses on morphological awareness, taking cognisance of gender differences. This would enable filling of the gap in the literature, as far as morphological awareness and gender is concerned.

To find the impact of gender difference on students' academic performance, Mwiigi (2013) carried out a study using five secondary schools in Kenya. The study used 80 participants, which included students, teachers, head teachers and directors. Questionnaires and interviews were employed for data collection. Both quantitative and qualitative research methods were used. The results revealed a significant gender difference by performance, with males doing better than their female counterpart. Also, it was revealed that, on the average, it is possible for males to score higher marks than females involved in the study.

This study considered gender difference but nothing was said about morphological awareness with respect to male and female. This, again, just like the foregoing reviewed studies (Waskita, 2008; Okonkwo, 2014), confirmed a gap in literature as far as achieving morphological awareness, with respect to gender is concerned. This shows that studies focused specifically on gender and morphological awareness are necessary to fill the gap in literature. Therefore, the present study is relevant to filling this gap in the literature, where gender differences would be considered with reference to morphological awareness in the English language.

Fidelia (2015) conducted a study to investigate the effects of gender using collaborative instructional strategy on students' achievement in English essay writing. The study employed the quasi-experimental pretest posttest non-equivalent control group design. A sample size of 191 students from a population of 1,797 Form Two (2) students from four secondary schools was used. The EEAT achievement test was used. Descriptive statistical tools used to analyse the

research questions were the mean, standard deviation, and the analysis of covariance (ANCOVA) used to test the hypothesis formulated. The results showed no significant difference between male and female students.

Though Fidelia's (2015) study considered gender difference in writing, the focus was on essay writing but not specifically on morphological awareness. This justifies the significance of this study to literature as it focuses on gender difference in the achievement of morphological awareness. Further, his study focused on Secondary School students, compared to the basic school students being considered by the present study. In all, there is a gap here that needs to be filled and, therefore, the present study is relevant in this regard.

In another study, Latifa (2018) investigated whether Moroccan male and female undergraduates use similar or different writing strategies when composing essays. The essays were focused on narrative and expository genres. The main research tool used was the think-aloud, a questionnaire, and interviews. Data collected pertained to male and female students' use of strategy and cognitive process whilst writing English as a foreign language (EFL). The study used both qualitative and quantitative research approach, where the two-way analysis of variance (ANOVA) was employed. The result showed, after analysis of 64 think-aloud protocols, that the participants use different writing strategies in terms of type and frequency. It was also revealed that each gender group used, more frequently, some writing skills than the other group; nevertheless, the difference in frequency was statistically insignificant.

Additionally, interaction of gender, use of writing strategy, and discourse type used showed a significant difference in the usage of the strategy of language switching. Similarly, a vast difference between males and females in the use of the strategies investigated was found, as well as difference in their overall writing behaviours. Latifa's (2018) study was a detailed one, employing both qualitative and quantitative approaches; however, the study did not specifically touch on morphological awareness and it is influenced by gender. Thus, the current study is necessary to filling this lacuna in literature.

In yet another study, Arhin and Offoe (2015) sought to assess the differences in performance of students at the Ghana National College in Cape Coast. This study focused on performance in Mathematics. The quasi-experimental research design, where experimental and control groups were involved, was used. Forty-two (42) and forty (40) students were used for the experimental group and control group, respectively. Data from the students were collected using an open-ended mathematics test. The findings showed no significant difference between male and female, considering their performances. Arhin and Offoe recommended that performance assessment task be used in lessons by teachers.

Despite focusing on gender differences, Arhin and Offoe's (2015) study ignored the English language, let alone morphological awareness in English. The study focused purposely on mathematics. Despite the fact that Arhin and Offoe's study was conducted within the local context, it focused on the high school students and a discipline different from what the current study focused on. This

means that local literature lacks studies on morphological awareness and gender. Thus, the current study is imperative as it focused on gender and morphological awareness in the English language.

It appeared that most of the studies, which considered gender difference, focused on performance in disciplines other than what the current study focuses on, both studies conducted outside the local setting and within the local setting. Nonetheless, they all sought to assess differences in males and females with regards to one discipline or the other, including general English and academic English. Apart from studies discussed above, a number of other studies also considered gender differences. For instance, Adigun et al. (2015) conducted a study to examine the effect of gender on students' academic performance in computer studies. The sample size used was 275 students. A questionnaire containing multiple-choice past questions was used. The responses were scored and analysed, employing the independent t-test.

The results of the study showed that, on the average, males had a better performance compared to their female counterparts; however, this difference in performance, with regards to gender, was not statistically significant. The study then recommended that parents provide the right education they deemed affordable for their wards regardless of gender. Just as posited earlier, and just as some of the prior studies reviewed thus far showed, Adigun et al. (2015) considered gender, but this was in relation to performance in computer studies instead of English language with a special focus on morphological awareness in

English language. This means studies are needed to fill this gap, and the present study is going in just that direction to contribute to filling this gap.

From the foregoing review, it could be seen that the prior studies reported mixed findings. As some reported a significant difference between male and female students with respect to competence levels in various disciplines, others found no significant difference between male and female students with respect to competence levels. However, it should be pointed out that a majority of the studies were conducted outside Ghana, and thus it may be difficult to comprehensively apply their findings in the Ghanaian context for reliable decision making. Also, those done in Ghana focused on either participants other than basic school students or subjects other than the English language.

Reading comprehension and gender

Many studies have been done on reading comprehension and gender. For instance, Brantmeier (2003) examined passage content, comprehension, and any differences in gender in second language reading. The effects of readers' gender and passage content on second language (L2) reading comprehension were especially looked at in this study. The study included 78 participants in total. The participants were made to read two different authentic passages commonly used at transitional levels of instruction in Spanish. Two main indicators were used to measure comprehension – a recall and multiple choice questions.

The findings revealed significant interactions between readers' gender and passage content with comprehension on both assessment tasks. The author concluded that subject matter familiarity has a facilitating effect on second language (L2) reading comprehension by gender at the intermediate level of

Spanish instruction. This study considered gender; however, the language considered was Spanish, unlike the current study which focused the English language. Therefore, the effects of gender on performance in reading comprehension would be taken care of by the present study.

In another study, Badian (1999) determined whether defining reading disability by a discrepancy between group-administered tests of listening and reading comprehension would produce results similar in terms of stability, gender, and prevalence to IQ-achievement test discrepancy definitions. It was a longitudinal study which followed a population of 1,008 from pre-kindergarten through Grade 7-8 for 13 years. The results showed that among the participants with a consistent reading ability, the male-to-female ratio was 3.2:1, compared with 1.3:1 for the 5% of the sample who were nondiscrepant poor readers in both lower and upper grades. Badian concluded that defining reading comprehension disability in terms of a discrepancy between listening and reading comprehension provides a fairly accurate estimate of the stability, gender ratio, and prevalence of the disorder.

In assessing reading comprehension, Bray and Barron (2004) investigated the effects of texts-based interest, gender, and ability on reading comprehension. The study utilised the Hierarchical Linear Models (HLM) to examine the relationship between students' interest in reading passages and their performance on reading comprehension test items over passages. The study involved 19,735 Grade 4 through Grade 8 students. The stimuli used comprised 98 different reading passages.

The study found small but significant relationship between interest and test performance, which was stronger for girls and for students of higher ability levels. A second Hierarchical Linear Models analysis was used to explore whether certain passage characteristics were associated with higher or lower interest. It could be seen that Bray and Barron's (2004) study was longitudinal in a way, and focused, apart from gender, on ability of the students who participated in the study. On the other hand, the present study was cross-sectional in nature, and thus, would take of the gap Bray and Barron could not fill, using their Hierarchical Linear Models study.

Denton et al. (2014) studied adolescents' use of reading comprehension strategies, with focus on differences related to reading proficiency, grade level, and gender. The study included 1134 student participants in grades 7 to 12. The measures used for reading comprehension were the Gates-MacGinitie Reading Comprehension subset and Contextualised Reading Strategy Survey. The study employed confirmatory factor analyses and exploratory factor analysis. The findings showed female students to have reported higher use of all types of strategies in reading comprehension than did their male counterparts. This study, just as those reviewed above, did not assess students' competencies in reading comprehension using read-aloud approach which was considered by the current study, as read-aloud approach provides direct and unadulterated data from individual student participants.

Further, Arellano (2013) investigated gender differences in reading comprehension achievement in English as a foreign language in Compulsory

Secondary Education. The study analysed both global and specific objectives of reading comprehension development in English language in relation to students' gender. The participants were 141 – 72 girls and 69 boys – final year Compulsory Secondary Education students. The instrument used for data collection was reading texts selected from textbooks used for learning English at this level – Compulsory Secondary Education. The descriptive design was employed, using statistical tools frequencies and means. It was found that female students obtained better global result than their male counterparts. Also, the female students had better scores in the specific objectives of getting specific information, getting general information, understanding textual structure and deducing meaning from the context. Nevertheless, Arellano did not test any hypotheses so it was difficult to tell whether the difference was significant or not; the current study did.

Lafontaine and Monseur (2009) studied gender gap in comparative studies of reading comprehension. The study used 350 student participants. Both continuous and non-continuous texts were used as a reading stimulus. The Chi-squared test was carried out. The results revealed a huge gender gap for continuous texts and more cognitively demanding reading tasks. Lafontaine and Monseur only considered older students some of whom had repeated a level. Thus, issues on younger students were missing from their study.

Also, to assess gender differences in reading, Logan and Johnston (2010) conducted a study which investigated gender differences in reading. The study was a review of previous studies on gender and reading. The focus was specifically on studies which found gender difference in reading favouring boys.

Areas specifically examined included difference in behavioural and motivational factors, differences in cognitive abilities, differences in brain activation during reading and differences in reading strategies and learning styles. Obviously, differences were found between boys and girls, and the differences favoured boys. Logan and Johnston then provided insights into the type of environment to which boys may be more suited. The authors did not test any hypotheses as the study was just a review prior studies; thus, how significant the differences were was not stated. The current study filled this gap by testing a hypothesis relating to differences in gender with respect to reading.

Prior to Logan and Johnston's (2010) study above, Logan and Johnston (2009) had already carried out a study investigating gender differences in the relationship between reading ability, frequency of reading and attitudes and beliefs relating to reading and school. The study participants were 232 (117 males) 10-year children. The children were made to complete a reading comprehension test and a questionnaire exploring areas such as frequency of reading, attitude to reading, attitude to school, competency beliefs and perceived academic support – from peers and teachers. Overall, the study showed that girls had better reading comprehension, read more frequently and had a more positive attitude to reading and school.

Furthermore, Pae (2003) examined the effect of gender on English reading comprehension for Korean English as a Foreign Language (EFL) learners. A random sample of 14, 000 (7, 000 males and 7, 000 females) Korean examinees was involved in the study. The English subtest, with a Reading Comprehension

subtest comprising 38 items, of the 1998 Korean National Entrance Examination for Colleges and Universities was used for data collection. The gender effect was measured using the Differential Item Functioning (DIF) methodology. Results of the study indicated that items classified as Mood/Impression/Tone tended to be easier for females, whilst items classified as Logical Inference were more likely to favour males regardless of item content.

Also, after conducting a content analysis, Pae (2003) revealed that passage content was not a reliable factor that predicts interaction between gender and performance in reading comprehension; thus, indicating that future studies about gender and performance in reading comprehension should consider item types as well as item content. Wei (2009) investigated the relationship between gender differences and reading comprehension at secondary school level in China. Basically, the study was a review of prior studies on gender differences and achievement in reading comprehension. Overall, a chunk of the studies reviewed showed that gender differences – being a male or female – have impacts on reading comprehension. Empirically, Wei's study lacked methodology, and the review was done without a reference to any guiding framework. This implies that the more appropriate way to assess the relationship between gender differences and reading comprehension is to use an originally conducted empirical study. Thus, the current study proves relevance here.

From the foregoing reviews, it could be seen that, though several studies have looked at gender and performance in reading comprehension, none of the studies considered basic school students (junior high school). Many of the studies

either considered university level students or secondary school level students as participants. Also, to the best of knowledge of the current researcher, no study had been conducted in the current study setting – Mfantseman Municipality in the Central Region of Ghana. Therefore, the current study became appropriate as it would help unravel the differences in reading comprehension with respect to gender, involving basic school students in the Mfantseman Municipality of Ghana as participants.

Morphological awareness and reading comprehension

A number of studies have looked at morphological awareness and reading comprehension. For instance, in their study – the morphology-vocabulary-reading mechanism and its effect on students' academic achievement in an English L2 context – Stoffelsma et al. (2020) assessed the relationship between English L2 students' morphological awareness, vocabulary knowledge, reading proficiency and academic achievement, and made comparisons at two levels – general English and academic English. The study participants were 454 second and third year English L2 university students in Ghana. The authors used two different mediation analyses.

The results showed morphological awareness to have affected academic achievement through four distinct pathways – indirectly through vocabulary, indirectly through reading comprehension, indirectly through vocabulary and reading comprehension sequentially, and directly. They concluded that knowledge of morphology affects academic achievement at tertiary level in English L2 contexts, both directly and indirectly. Their study, though presented useful materials which could be used by the current researcher, focused on university

students; thus, evidencing paucity of studies on morphological awareness and reading comprehension among basic school students (junior high school). This only goes to accentuate the significance of the current study to existing literature, as among other things, the current study considered gender with respect to morphological awareness and reading comprehension.

To address the issue that school children not only read and recognise morphologically complex words but also determine their meanings, Carlisle (2000) investigated the relationship of third and fifth graders' awareness of the structure and meanings of derived words and the relationship of these forms of morphological awareness to word reading and reading comprehension. The study participants were 34 third graders, made up of 18 boys and 16 girls, and 26 fifth graders, made up of 10 boys and 16 girls. Instruments used for data collection were Word Reading Test, Test of Morphological Structure, Test of Absolute Vocabulary Knowledge, Comprehensive Testing Programme, and Vocabulary and Reading Comprehension subtests. The correlational design was employed, and statistical tools of mean, standard deviation, percentages, frequencies, ANOVA, Pearson Product-moment correlation coefficients and regression were used.

The results showed morphological awareness to have a significant relationship with reading performance. Pearson correlations produced a significant association between the third graders' awareness of morphologically complex words and reading performance. Similarly, a significant correlation was found between fifth graders' morphological awareness and performance in

reading. The regression analyses showed morphology tasks to have accounted for 43% of variance in reading comprehension for fifth graders, and 26% of the variance in reading comprehension for third graders. Carlisle concluded that morphology contributes significantly to reading comprehension.

Though Carlisle's (2000) study considered various aspects of morphology and reading comprehension, nothing was said about difference between male and female students with respect to performance in morphological awareness and performance in reading comprehension. This indicates that there is a gap in the literature that needs to be addressed in terms of morphological awareness and reading comprehension performance in relation to gender, making the current study pertinent. Additionally, Carlisle concentrated on third and fifth grade kids in the Netherlands, but the current study took into account junior high pupils in the Mfantseman Municipality of Ghana; thus, filling the vacuum in local literature.

Also, Ku and Anderson (2003) studied development of morphological awareness in Chinese and English. The study involved 412 Taiwanese and 256 American students in second, fourth, and sixth grades. The instruments employed for data collection were Reading Comprehension Test, Select Vocabulary Test, Judge Pseudowords Test, Select Interpretation Test, Discriminate Morphemes, and Recognise Morphemes Tests. The correlational design was used. For data analyses, both descriptive statistics of mean and standard deviation, and inferential statistics of Pearson correlation and regression techniques were employed. The results from both Chinese-speaking and English-speaking students indicated that morphological awareness develops with grade level and is strongly

related to reading ability. The regression analysis also showed that morphological awareness is a predictor for better reading comprehension.

In its entirety, Ku and Anderson's study confirmed strong relationships of morphological awareness to vocabulary knowledge and reading comprehension, and this supported their notion that children's insights into internal structure of words play an important role in reading development. This notwithstanding, it is possible the combination of Chinese-speaking students and English-speaking students might have influence on the overall outcome of the study. Students whose only official language is English were thus included in the current study. This was done to guarantee the validity of the tests used to assess both reading comprehension and morphological awareness.

In another study, Castles et al. (2018) considered reading acquisition from novice to expert, which was directed towards ending of the reading wars. They presented a comprehensive tutorial review of the science of learning to read, spanning from children's earliest alphabetic skills through to fluent word recognition and skilled text comprehension characteristics of expert readers. After their assessments, it was found that the more one becomes aware of words, morphologically, the more the person becomes advanced in reading. However, it should be pointed out that Castles et al.'s study did not employ any substantive statistical tools to test the relationship between morphology and reading; thus, statistical significance their finding could not be established. The methodologies used in the current study, on the other hand, ensured that the statistical

significance of the connection between morphological awareness and reading comprehension in the English language could be assessed.

Further, van de Werff (2020) conducted an exploratory study which aimed at providing insights into the general English (3000 word-level) vocabulary and academic English vocabulary knowledge of Dutch university students. The study included two factors – morphological awareness and reading attitudes – that Van de Werff deemed important in predicting students' vocabulary knowledge. An online vocabulary test was conducted as well as a morphological awareness test and a questionnaire about reading for study purposes in English language, using 111 Dutch students. The explanatory research design was employed, using statistical tools of frequencies, percentages, mean, standard deviation, correlation and regression analyses.

van de Werff (2020) found morphological awareness to be a significant predictor for vocabulary knowledge. The results also indicated that study participants were below mastery levels, with respect to general and academic English language which included elements of morphological awareness and reading comprehension, and causal relationships between vocabulary and reading attitudes could not be established. However, Van de Werff suggested that further studies should look at morphological awareness and reading attitudes, as well as an extended study on vocabulary and reading attitudes. Thus, the current study, which takes into account the connection between morphological awareness and reading comprehension, is moving in the correct direction to close this gap.

Also, Nagy et al. (2006), using structural equation modelling, evaluated the contribution of morphological awareness, phonological memory, and phonological decoding to reading comprehension, reading vocabulary, spelling, and accuracy and rate of decoding morphologically complex words for 182 4th and 5th grade students, and 207 8th and 9th grade students in a suburban school district. The results showed morphological awareness to have made a significant unique contribution to reading comprehension, reading vocabulary, and spelling for all the three groups, to all measures of decoding rate for 8th and 9th grade students, and to some measures of decoding accuracy for the 4th and 5th grade students. The findings further showed that morphological awareness made a significant contribution to reading comprehension above and beyond that of reading vocabulary for all the three groups.

The study by Nagy et al. (2006) made a substantial contribution to literature, yet it was carried out in an environment where English was the first language. Thus, in order to evaluate the relationship between morphological awareness and reading comprehension, the current researcher felt it was essential to extend this to a location where English is a second language (L2). Additionally, Nagy et al. neglected to take gender into account while analyzing morphological awareness and reading comprehension. Therefore, gender was taken into account in the current study when it came to morphological awareness and reading comprehension.

To investigate the morphological awareness and processing in adults with low literacy, Tighe and Binder (2015) conducted a study which specifically

assessed the contribution of morphological awareness independent of phonological awareness and decoding to the reading comprehension abilities of adults with low literacy, and investigated the processing of morphologically complex words of adults with low literacy in both an oral reading passage and single-word naming task. The study used 57 adult participants in western Massachusetts. The instruments used for data collection were based on morphological, phonological, decoding, and reading comprehension skills, as well as oral passage reading and a single-word naming task. Statistical tools such as Pearson correlation, regression techniques, analysis of variance (ANOVA), frequencies and percentages were used for data analyses.

The results revealed that morphological awareness was a significant unique predictor of reading comprehension. It was also indicated that adults were vulnerable to morphological complexity as they performed more precisely and quicker on matched control words compared to morphological complex words. Though Tighe and Binder had considered the relationship between morphological awareness and reading comprehension, among other things. The current researcher realized that the focus was more on adults with low literacy, so it was necessary to expand the scope of the study to include students in junior high level basic schools, as this would ensure comprehension of the relationship between morphological awareness and reading comprehension among students at the basic school. This gap in the literature is being filled by the current investigation.

Furthermore, in another study, to investigate the joint and unique contributions of morphological awareness and vocabulary knowledge at five reading comprehension levels in adult basic education students, Tighe and Schatschneider (2014) conducted a quantile regression approach to understanding the relations among morphological awareness, vocabulary, and reading comprehension in adult basic education students. The study participants were 136 3rd -12th grade adults. The instruments used included a demographic survey, and a set of ten (10) tasks which involved seven (7) experimental morphological awareness measures, two (2) norm-referenced vocabulary knowledge measures, and one (1) norm-referenced reading comprehension assessment. The multiple regression analysis and multiple quantile regression analysis were employed for data analyses.

The results revealed that morphological awareness and vocabulary knowledge explained a large portion of the variance, between 85% and 95%, in reading comprehension skills across all quantiles. Also, morphological awareness showed the highest unique predictive ability at lower levels of reading comprehension, compared to vocabulary knowledge which exhibited the highest unique predictive ability at higher levels of reading comprehension. This study (Tighe, & Schatschneider, 2014) has provided a good reference point for the current study; nevertheless, it should be pointed out that the participants involved in the study were all native English speakers unlike the current study which considered non-native speakers of the English language. In light of studies conducted in native-speaking environments, the current study will be able to

demonstrate whether or not one's status as a native speaker of the English language affects the relationship between morphological awareness and reading comprehension.

Ellis (2008) studied the dynamics of second language emergence, with focus on cycles of language use, language change, and language acquisition. It was found, in part, that grammatical ability developed at more accelerated rates impacts achievement in general language proficiency, including reading ability. Also, the author summarised a process that language usage leads to change, change affects perception, perception affects learning, and learning affects usage. Elli's study, unlike the current study, focused more on language acquisition as well as the various processes involved. However, it was relevant to the current study as it drew a link between grammatical ability, which could be achieved through morphological awareness, and reading ability.

In summary, it could be seen from the review that majority of the studies looking at the relationship between morphological awareness and reading comprehension were conducted outside Ghana. A closely related study conducted in Ghana was that of Stoffelsma et al. (2020); however, their study focused on university students, and thus their findings cannot easily be applied to basic school students. It was then obvious that gap existed in local literature, hence the need for the present study to fill this gap by assessing the relationship between morphological awareness and reading comprehension among basic school students in the Mfantseman Municipality of Ghana.

Conceptual Framework

Drawing from the underpinning theories and empirical studies, taking cognisance of the study hypotheses, the following relationships have been inferred between morphological awareness in the English language and reading comprehension in the English language, considering gender. Figure 1 presents the inferred relationship between the morphological awareness in the English language and reading comprehension in the English language, taking cognisance of gender. From the figure, the arrow labelled H_0^3 indicates a linear relationship or association between morphological awareness and reading comprehension in English.

The bigger circle represents the English language class at the basic school where both morphology and reading comprehension are taught. This class is made effective, as indicated by the broken arrows, through available English literature, teaching and learning materials, teachers, as well as the general environment. Also, the researcher was of the view that all students taught in this class, irrespective of gender, should demonstrate standard morphological awareness and performance in reading comprehension, as shown by the two arrows connecting the bigger circle to morphological awareness and reading comprehension. However, the gender factor was considered as the researcher expected to assess the differences in morphological awareness and reading comprehension, with respect to gender (male or female) as indicated by the arrows labelled H_0^1 and H_0^2 .

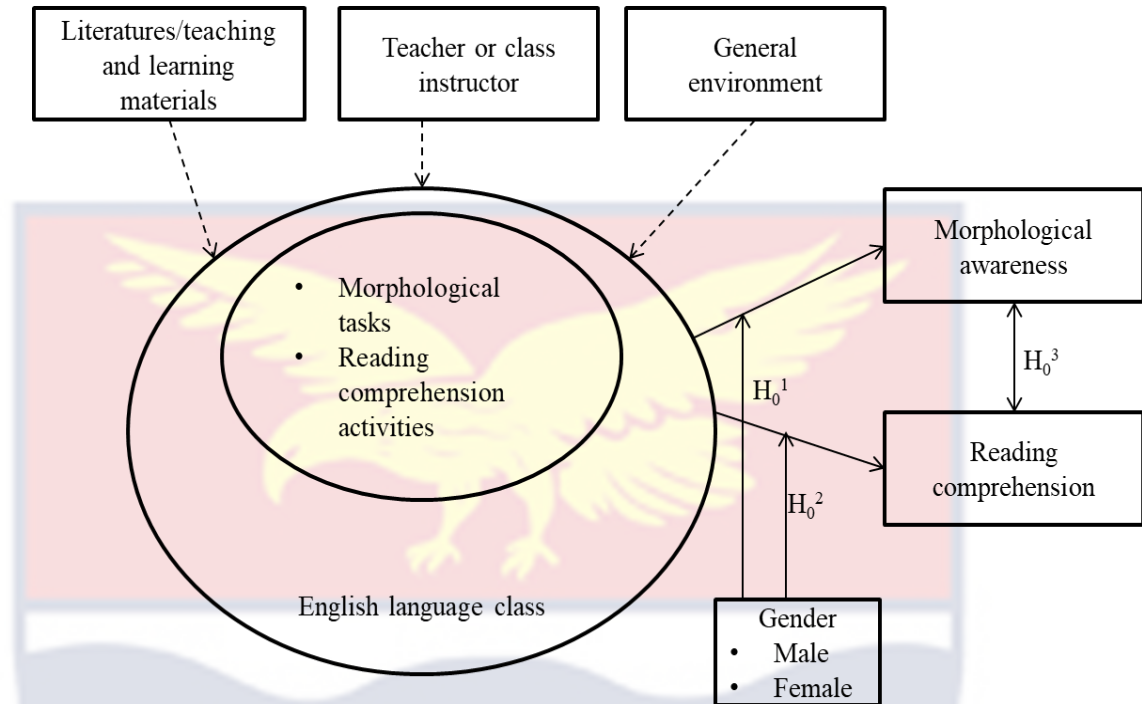


Figure 1: Conceptual framework

Source: Author's construct (2021)

Chapter Summary

This chapter discussed the underpinning theories of this study, concepts, empirical studies relating to the present study, and presented the conceptual framework. The theories employed are the Lakoff's (1975) theory, the difference theory by Tannen (1990) and the performativity theory by Baxter (2008). The related empirical studies reviewed showed that relationship exists between morphological awareness and reading comprehension in the English language. Aside that, gender has been shown to have influence on students' competence levels in various disciplines; however, searches did not find any study on gender difference with respect to morphological awareness and reading comprehension among basic school students in Ghana.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the following: Research design, study area, population of the study, sample size and sampling procedure, data sources, data collection instruments, data collection procedure, instrument reliability, instrument validity, data processing and analysis, ethical considerations, and chapter summary. The design section of the chapter discusses the philosophical stance underlying the study, the research approaches and methods. The study area focuses on the research setting, as the population and sample size consider both the unit of observation and unit of analysis.

Research Paradigm/Approach

The study employed the positivist research philosophy. Positivism implies that the researcher maintains independence and disregards all human interests in order to ensure objectivity (Wilson, 2017). This viewpoint was employed because the study sought to find out the relationship between variables, using quantitative data which is consistent with the positivist research paradigm (Creswell, Plano-Clark, Guttman, & Hanson, 2003). Also, the researcher sought to ensure objectivity of findings, or to maintain minimum researcher-interaction with the researched.

Also, the researcher is aware that debates still continue on how social science researches should be conducted (Easterby-Smith, Thorpe, & Jackson, 2012). These debates mostly revolve around two divergent philosophical views –

positivism and constructivism (Easterby-Smith et al.). However, the choice of how a researcher perceives the world lies with the end to which the research is being conducted (Creswell et al., 2003; Easterby-Smith et al.). The researcher felt it was prudent to apply this research paradigm to ensure biases were kept to a minimum in order to provide accurate results because the current study focused on evaluating relationships between ideas.

Consistent with this research paradigm, the study used the quantitative research approach. This approach uses quantitative data to describe phenomena; the focus is on measurements, and numerical analysis of data to provide the description (Levitt et al., 2018). This method was used because the study collected numerical data from the study participants, basic school students from basic schools in the Mfantseman Municipality of Ghana, for analysis to achieve the study objectives. Also, the researcher ensured the study was, to a large extent, devoid of subjectivity in order to obtain more reliable results.

Research Design

Considering the foregoing research paradigm and approach, the correlational design was used for this study. According to Levitt et al. (2018), this design studies relationships between or among variables without implying causation, and since this study sought to assess relationship between variables, grammatical competence and performance in communicative skills, without implying causation, this design was deemed appropriate. Also, the researcher sought to describe the study variables, since this design has engrained in it descriptive features (Wilson, 2017; Creswell, 2013; Easterby-Smith et al., 2012).

Study Area

The study area for this research is the Mfantseman Municipality of Ghana. Saltpond is the capital town of the Municipality. The Mfantseman Municipality is in the Central Region of Ghana. The Municipality is bounded to the West and Northwest by Abura-Asebu-Kwamankese District, to the East by Ekumfi District and to the South by the Atlantic Ocean. The Municipality has a population of 144,332 people (64,923 male and 79,409 females) and a total land area of 533km² (World Gazetteer, 2013). Economically, the Municipality boasts of offshore crude oil resources: The Saltpond Offshore Producing Company Limited, and two joint venture partners operate the Saltpond Oil Field (Saltpond Field, 2010).

Other economic activities include farming, notably, maize farming; fishing, and bee-keeping. The Municipality also boasts of some renowned high schools, Mfantseman Girls' High School, and Methodist High School. Apart from these high schools, the Municipality has a number of basic schools. The study area comprised 74 junior high schools (JHSs). These basic schools provide basic education to the children in the Municipality and its neighbouring towns. This research is focused in this Municipality because the researcher realised that the basic school students in the Municipality have challenges with English language; especially, aspects of grammar and communicative skills. This locale has been chosen because the students' competence in the English language has been poor and no empirical study has yet been conducted to address the necessary variables.

Population

The target population was students in all the 74 JHSs in the Mfantseman Municipality. However, only 14 JHSs were accessible, as the remaining 60 schools declined participation. The accessible population was, thus, made up of 1780 JHS students – comprising 1092 males and 688 females – from the 14 JHSs in the Mfantseman Municipality of Ghana. These students were in JHS 1, JHS 2 and JHS 3. These students have had at least seven years of English studies; meaning, they have had a lot of lessons in the English language; thus, they were expected to demonstrate a high level of grammatical competence and performance in communicative skills in the English language. These 14 JHSs were still representative of the 74 JHSs in the entire Mfantseman Municipality, as they represented about 19% of the 74 (Westfall, 2020). The population distribution is presented in Table 1; however, the schools' names have been pseudonymised.

Table 1: Population Distribution

SN	Schools	Population
1	Basic School A	559
2	Basic School B	103
3	Basic School C	130
4	Basic School D	58
5	Basic School E	73
6	Basic School F	136
7	Basic School G	158
8	Basic School H	122
9	Basic School I	77
10	Basic School J	67
11	Basic School K	46
12	Basic School L	116
13	Basic School M	102
14	Basic School N	33
Total		1780

Source: Mfantseman Municipal Education Directorate (2021)

Sample Size and Sampling Procedure

The sample size was 317 basic school students – made up of 128 males and 189 females – arrived at using the Krejcie and Morgan's (1970) sample size determination table, with 95% confidence level and 5% margin of error. Krejcie and Morgan argue that there is no need using sample size determination formula for 'known' population since the table has all the provisions one requires to arrive at the required sample size. This sample size was very much representative of the accessible population as prior researchers suggested 10% of study population to be enough (Westfall, 2020).

For the sampling procedure, the study employed the proportional random sampling technique to select the students to make up the sample size. Using the proportional random sampling technique, the number of students drawn from each school was based on the population of the school. The sample from each school was calculated by dividing the population of a school by the total population and multiplying the result by the total sample size. In each school, randomly MS Excel generated numbers were used to select students for the study. The sample size distribution is presented in Table 2.

Table 2: Sample Size Distribution

SN	Schools	Population	Proportion computations	Sample Size
1	Basic School A	559	$(559/1780)*317$	100
2	Basic School B	103	$(103/1780)*317$	18
3	Basic School C	130	$(130/1780)*317$	23
4	Basic School D	58	$(58/1780)*317$	10
5	Basic School E	73	$(73/1780)*317$	13
6	Basic School F	136	$(136/1780)*317$	24
7	Basic School G	158	$(158/1780)*317$	28
8	Basic School H	122	$(122/1780)*317$	22
9	Basic School I	77	$(77/1780)*317$	14
10	Basic School J	67	$(67/1780)*317$	12
11	Basic School K	46	$(46/1780)*317$	8
12	Basic School L	116	$(116/1780)*317$	21
13	Basic School M	102	$(102/1780)*317$	18
14	Basic School N	33	$(33/1780)*317$	6
Total		1780		317

Source: Mfantseman Municipal Education Directorate (2021)

Data Collection Instrument

Two instruments were used to collect the data for this study: Reading Comprehension Achievement Test (RCAT) and the Morphological Awareness Test from the Grammar Assessment System adapted from Mohamed et al. (2011). The Reading Comprehension Achievement Test comprised two key parts – test of reading ability or skill and understanding of content read. The Part I tests reading skill and required participants to read a passage adapted from Tighe and Binder (2015) aloud. The Part II required the participants to answer five questions based on the passage read in order to assess their overall comprehension of the content of the passage read. The first part attracted a score of 10 and the second part also attracted a score of 10, making a grand total of 20.

The passage contained 327 words constructed with specific attention to different inflectional endings and types of derived words. For inflected endings,

the passage included eight – *s* words, eight – *ed* words, and six – *ing* words, each of which was matched based on frequency with single-morpheme control words utilising the Standard Frequency Index (SFI) (Carrol, Davies, & Richman, 1971) (e.g., *times* and *since*; *walked* and *stay*; *smiling* and *marry*). Also, the passage included 34 derived words from Carlisle and Stone's (2005) study – low-frequency derived words with high-frequency bases aligned with high-frequency, high-frequency base words (e.g., *flowery* and *lucky*).

The second instrument, the Morphological Awareness Test, focused on morphology. This test was made up of 20 multiple choice items. Each question carried four alternative answers, labelled A to D; however, there was only one correct answer in each case. This test was scored out of 20. The score was distributed equally across the 20 questions. A right answer attracted one (1) point; and a wrong answer attracted a zero (0) score. An example of morphological awareness item included in the instrument is in the following parenthesis (e.g., *His friends always_____his efforts to write poetry*. Options for students to consider: (A) *deride* (B) *derideness* (C) *derision* (D) *deriliction*). Table 3 presents a summary of the study variables and their measurements.

Table 3: Variables and Measurements

Variables	Indicators	Measurements	Source
Morphological awareness	Morphology	20 dichotomous response items scored 0 or 1 each	Adapted from Mohamed et al. (2011)
Reading comprehension	<ul style="list-style-type: none"> • Reading skill • Understanding 	Score from 0 to 20	Tighe and Binder (2015)
Gender	Male Female	Dummy coded: male = 1; female = 0	Transformation by Author (2021)

Source: Mohamed et al. (2011), Tighe and Binder (2015), and Author (2021)

Instrument Validity

Before being used to collect data for this study, the contents of the instruments were examined for validity, though these instruments have been adopted from prior researchers (Mohamed et al., 2011; Purpura, 2014; Tighe, & Binder, 2015; Carrol et al., 1971) and have been accepted and used by other researchers (Carlisle, & Stone, 2005; Tighe, & Binder, 2015; Wilson-Fowler, & Apel, 2015). These notwithstanding, the researcher still consulted five content experts who are experienced in grammar and communicative skills in the English language. These experts are experienced West African Examination Council (WAEC) English language examination paper examiners. Besides, the instruments were given to the thesis supervisor for face validation. The various suggestions made by these experts were incorporated into the final instruments used for the data collection, in order to enhance content validity.

Instrument Reliability

The Morphological Awareness Test which employed the multiple-choice format had already been assessed for internal consistency by prior researchers, since the instrument was adapted. To test the internal consistency reliability, the Kuder-Richardson (KR-20) methods which are more sensitive to sources of internal consistency and suitable for measuring reliability of tests with dichotomous response items – only one correct answer (Oosterhof, 2001; Mohamed et al., 2011) – was employed by prior researchers (Mohamed et al., 2011; Purpura, 2014). The Kuder-Richardson reliability coefficient obtained in prior studies were above 0.50 (Purpura, 2014; Mohamed et al.; Oosterhof, 2001) which is a threshold for a test to be deemed complete and reliable (Mohamed et al, 2011). Also, Tighe and Binder (2015) obtained a Cronbach alpha reliability coefficient of 0.82 for this instrument.

For internal consistency reliability of the Reading Comprehension Test, the test reliability obtained by Cotter (1988) was 0.93, and Cronbach alpha of 0.92 was obtained by Tighe and Binder (2015). According to scholars (Cho, 2016), a reliability coefficient of above 0.50 is good for an instrument to be considered reliable. Thus, the Reading Comprehension Test used for this study could be said to be reliable and consistent. This implies that the data collected using these instruments were reliable; thereby, making results obtained from the analysis valid, reliable and generalisable.

Data Collection Procedure

Before the actual data collection, the researcher obtained an introductory letter from the Department of English, University of Cape Coast. This letter was addressed, well in advance, to the heads of the basic schools from which the students were selected for the study. After getting approval from the heads of the basic schools, the researcher then visited these schools to meet the students and educate them in advance on the data collection exercise. The randomly selected participants were assigned codes from 01 to 317. The areas tested were made known to the participants as well, so as for them to prepare in advance, as the two tests were administered the same day.

Two days after visiting these schools, the researcher revisited and, with the help of four assistants, engaged the students for the tests. The Morphological Awareness Test was administered first. The researcher made sure the test was taken under a strict examination condition in order to avoid idea sharing among the students. This test lasted 30 minutes after which the scripts were collected from the students. The students were then allowed to take a 30-minute break after which the Reading Comprehension Test was taken. This started with the Part I-Reading skill, and then Part II-Comprehension skill.

For Part I-Reading skill, students were made to read, quickly, a passage and then responded to the questions on the passage read, in Part II. Because the focus of the researcher was on how the various words in the passage were pronounced and general reading skill exuded by the students, the students were recorded while they read, using a tape-recorder in order to guide the assessment of

the individual students after the reading exercise. After all these exercises in the 14 basic schools selected for the study, the scripts were marked and the scores recorded in a spreadsheet against the codes assigned (to uphold confidentiality) to the students, for processing and analysis.

Data Processing and Analysis

Frequencies, percentages, mean, standard deviation, two-independent sample t-test, and the Pearson product-moment correlation coefficient were used for data analysis. These frequencies and percentages were used to classify the students, with respect to their performances, into “Above standard – score above 70%”, “Meet standard – from 50% to 70%”, Below standard – between 30% and 50%” and “Academic warning – below 30%”. This classification was done for both morphological awareness and reading comprehension in the English language. This classification method was adapted from the Prairie State Achievement Examination (PSAE) standards (Illinois State Board Education, 2004).

Also, mean, standard deviation, kurtosis and skewness were used to assess the overall distribution of the data. Further, to achieve the first and second objectives, and to test their corresponding hypotheses, the two-independent sample t-test was used for the statistical analysis. For the third objective and testing of its corresponding hypothesis, the Pearson product-moment correlation coefficient was computed. A correlation co-efficient of (+1) represents a perfect positive correlation between morphological awareness and reading comprehension in English language whilst a value of (-1) represents a perfect

negative correlation. The researcher also wanted to know the variance in reading comprehension of students explained by morphological awareness; thus, the simple linear regression was conducted after the correlation analysis. All tests were significant at $\alpha \leq 0.05$. The SPSS v23 was used for the data processing.

Ethical Considerations

First and foremost, the university's ethical standards were taken into consideration. Also, in order to ensure strict compliance with ethical standards of research, the students were assured of anonymity and confidentiality. Specifically, they were informed that in the event that anything is published from this research, no information supplied would be identifiable to them since only aggregated data would be reported in this study. In addition, the time required for completing the instruments was mutually agreed between me and the students, and the students had the liberty to opt out of the survey anytime at will.

Field Challenges

Minor challenges were encountered in the data collection and organisation activities. For instance, due to the COVID-19 pandemic, the researcher had to provide face masks and hand-sanitisers for the students involved in the study and the teachers who assisted, and these attracted cost. Also, due to the large number of participants involved in the study, the researcher got overburdened with data entry and management activities. Nevertheless, the researcher ensured that elements that could further influence the reliability of the findings were held at bay by sticking strictly to the scope defined, under delimitation, for the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents results of data analysis and discussion. The first part presents socio-demographic information of the students involved in the study, overall classification of students' performances, and descriptive statistics on morphological awareness and reading comprehension in English and gender. The second part presents results to achieve the first, second and the third objectives.

Socio-Demographic Information on Students

The respondents' socio-demographic information, especially their gender and level at the basic schools were considered necessary and relevant. Table 4, therefore, presents results on student socio-demographic information. The information presented comprises gender, age, level at school, and whether a student can read and understand.

Table 4: Socio-Demographic Information

Variables		Frequency	Percent
Gender	Female	189	59.6
	Male	128	40.4
Age	< 15years	153	48.3
	15years – 19years	162	51.1
	≥ 20years	2	0.6
Level at school	JHS1	110	34.7
	JHS2	93	29.3
	JHS3	114	36.0

Source: Field survey (2021)

N = 317

More female students (189, 59.6%) were involved in the study than their male counterparts (128, 48.3%). The results also showed that the majority of the students were between the ages of 15 years and 19 years (162, 51.1%), followed

by those below the age of 15 years (153, 48.3%) and then those above or at 20 years (2, 0.6%). Considering their levels, 110 (34.7%), 93 (29.3%) and 114 (36.0%) were in JHS1, JHS2 and JHS3, respectively. Further, all the students involved in the study could read and understand. Table 5 shows the specific classes involved in this study and the age distribution of the students in these classes.

Table 5: Levels and Age Distribution of Students per Level

		Age					
		<15years		15years-19years		≥20years	
Levels		Freq.	%	Freq.	%	Freq.	%
	JHS 1	66	60.0	44	40.0	0	0.0
	JHS 2	47	50.5	46	49.5	0	0.0
	JHS 3	40	35.1	72	63.2	2	1.8

Source: Field survey (2021)

N = 317

Most of the students (66, 60.0%) in JHS 1 were below the age of 15 years at the time of this study. Those in JHS 2 and were below the age of 15 years were 47 (50.5%) of the participants in JHS 2. Forty (40) students who were in JHS 3, representing 35.1%, were below the age of 15 years. Forty-four (44) students, representing 40.0%, who were in JHS 1 were from the ages of 15 years to 19 years. The results also showed that 46 (49.5%) students in JHS 2 were from the age of 15 years to 19 years. For those in JHS 3, 72 (63.2%) and two (1.8%) were from the age of 15 years to 19 years and equal to or above the age of 20 years, respectively.

Classification of Students' Performance

The researcher deemed it appropriate to classify the students' performances in morphological awareness and reading comprehension in English language into "Above standard – score above 70%", "Meet standard – from 50% to 70%", "Below standard – between 30% and 50%" and "Academic warning – below 30%". This classification method was adapted from the Prairie State Achievement Examination (PSAE) standards (Illinois State Board Education, 2004). The results are presented in Table 6.

Table 6: Performance Classification

Test	Score	Classification	Frequency	Percent
Morphological awareness	> 70%	Above standard	7	2.2
	≥ 50% and ≤ 70%	Meet standard	46	14.5
	≥ 30% and < 50%	Below standard	156	49.2
	< 30%	Academic warning	108	34.1
	> 70%	Above standard	164	51.7
Reading comprehension	≥ 50% and ≤ 70%	Meet standard	79	24.9
	≥ 30% and < 50%	Below standard	38	12.0
	< 30%	Academic warning	36	11.4
	> 70%	Above standard	164	51.7

Source: Field survey (2021)

N = 317

From the results presented in Table 6, it could be seen that seven (7) students, representing (2.2%) of the students (those involved in this study), obtained scores above standard in the Morphological Awareness Test, with less

than 15% meeting the academic standard. Almost half of the students were below standard, as far as their performance in morphological awareness was concerned. As many as 108 were within the zone of academic warning. Obviously, it could be inferred from the results that majority of the participants had low level of awareness in morphology in English language, as a total of 264 students' morphological awareness level was either below standard or in academic warning zone.

Regarding Reading Comprehension Achievement Test, more than half of the total number of students involved in the study performed above standard, whereas about a quarter were shown to meet the academic standard. Thirty-eight performed below standard whilst a little above 10% were found with the category of academic warning. These scores indicate that the majority of the participants are good at reading comprehension, compared to morphology.

Descriptive Statistics on Morphological Awareness and Reading Comprehension

Before addressing the main study objectives, the researcher conducted an analysis to ascertain the overall distribution of the data obtained on morphological awareness and reading comprehension. The descriptive statistics computed were mean, standard deviation, minimum, maximum, skewness and kurtosis. The outcome of the analysis helped the researcher to ascertain whether the data were normally distributed or outside the normal distribution line. The results are presented in 7.

Table 7: Descriptive Statistics

Statistical tools	Morphological awareness	Reading comprehension
Mean	34.81%	67.26%
Std. Deviation	14.87%	26.59%
Minimum	5%	5%
Maximum	100%	100%
Skewness	Statistic	1.10
	Std. error	0.14
Kurtosis	Statistic	2.90
	Std. error	0.27

Source: Field survey (2021)

N = 317

As could be seen in Table 7, the average scores obtained by the students in the Morphological Awareness Test and Reading Comprehension Achievement Test were $M = 34.81\% \pm 14.87\%SD$ and $M = 67.26\% \pm 26.59\%SD$, respectively. This implies that the majority of the students scored higher marks in the Reading Comprehension Achievement Test than in the Morphological Awareness Test. Nevertheless, the minimum (Min. = 5%) and maximum (Max. = 100%) scores obtained by the students in both Tests were the same. Also, the results showed an average scores of 67.26% for Reading comprehension which implies that the majority of the pupils performed above average regarding reading comprehension. Further the results also showed an average score of 34.81% relative to Morphological awareness, which means that the majority of the pupils performed below average relative Morphological awareness.

Further, as posited by Hair, Hult, Ringle and Sarstedt (2017), the general guideline for skewness is that if the statistic is greater than (+1) or lower than (-1), it is an indication that the data are skewed. Likewise, a kurtosis statistic of greater than (+1) indicates a distribution which is too peak, and a statistic less than (-1) shows a too flat distribution. However, Hair et al. (2017) argued that statistics slightly above these guidelines are acceptable. Therefore, considering the skewness statistics (stats = -0.66, std. error = 0.14) and kurtosis statistics (stats = -0.64, std. error = 0.27) for Reading comprehension, they fall within the normal ranges, (+1) and (-1); hence, normally distributed data. On the other hand, the skewness statistics (stats = 1.10, std. error = 0.14) and kurtosis statistics (stats = 2.90, std. error = 0.27) for Morphological awareness were fairly above the referenced ranges; but could be considered normal, according to Hair et al. (2017).

Main Results and Discussion

Morphological Awareness and Gender

This objective sought to find out whether there is difference in morphological awareness in the English language among students at basic schools in the Mfantseman Municipality of Ghana, with respect to gender. To achieve this objective, the researcher carried out a two-independent samples t-test. The resultant statistics are presented in Table 8.

Table 8: Independent T-Statistics (N = 317)

Variable	Gender	Mean	SD	SE	Df	t-value	p-value
Morphological awareness	Female	35.95	15.49	1.13	315	3.121	0.097
	Male	33.13	13.80	1.20			

Note: SD = standard deviation, SE = standard error
 Source: Field survey (2021)

Prior to the analysis in Table 8, the Levene's Test for Equality of Variances was conducted. This statistics tested the assumption of homogeneity of variance. The Levene's Test for Equality of Variances showed a probability value of ($p = 0.25$). This implies that there is no statistically significant difference between the number of male ($n = 128$) and the number of female ($n = 189$) students involved in the study. Thus, the homogeneity of variance assumption was upheld, meaning Equality of Means analysis could be conducted to compare the two groups.

From Table 8, the mean score for the female students was ($M = 35.95 \pm 15.49\%SD$) and that for male students was ($M = 33.13 \pm 13.80\%SD$). From these results, it could be inferred that there was a slight difference between male and female basic school students in the Mfantseman Municipality, with respect to morphological awareness. Nonetheless, this difference was insignificant ($p = 0.097$), as the p-value produced was greater than 0.05; hence, failure to reject the hypothesis that, *“There is no statistically significant difference in morphological awareness in the English language among students at basic schools in the Mfantseman Municipality of Ghana with respect to gender.”*

From this result, it could be stated that the difference between the mean scores of male and female students was likely due to chance and not as a result of manipulation of the independent samples. This implies that, though female students at basic schools in the Mfantseman Municipality have fairly higher knowledge in morphology than their male counterparts, this difference can only be attributable to chance, as it was revealed that this difference was insignificant. In other words, gender has no significant influence on morphological awareness of students at basic schools in the Mfantseman Municipality.

This result could be due to the fact that both the male and female study participants received English instruction from qualified English teachers or from teachers who used similar teaching tools. It is possible that this will affect how well-versed the students are in English morphology. Additionally, given there are generally accepted methods to use when dealing with morphology-related tasks for academic purposes, it is possible that these students – both male and female – had studied these methods but did not pay much attention to advance their understanding of morphology, and this might have even contributed to their poor performance in the morphological awareness test.

This finding aligns, to some extent, with the findings of some prior studies. For instance, Okonkwo's (2014) study revealed males and females to have performed better in academic related activities in English language, and slight difference between the two groups have been attributed to the kind of activity being undertaken; thus, the difference between male and female was reported to be insignificant, implying that gender is not an obstruction to success

in English language and education in general. If Okonkwo's findings were compared to the present finding, it would be simple to conclude that minor differences between male and female samples of independent samples are predicted, but that these differences are typically not significant, as was reported by Bijami et al. (2013) and Fidelia (2015). This means that the new finding backs up the conclusions made by Bijami et al. (2013) and Fidelia (2015).

Also, this finding was in line with the findings of Latifa (2018). Latifa found study respondents, made up of both male and female students, to have achieved different performance levels, as each gender group used slightly different approaches to achieve high records in activities in the English language; nevertheless, the difference in performance was found to be statistically insignificant. All this goes to explain that gender actually has no remarkable influence on morphological awareness of students in basic schools in the Mfantseman Municipality. Further, this finding corroborates the findings of Arhin and Offoe (2015) which focused on difference between male and female students, with respect to performance. Though they recorded a higher performance among the students studied, no significant difference in performance, with respect to gender, was recorded.

To add, this finding shows consistency with the performativity theory (Baxter, 2008) which posits that both male and female can perform equally, without any remarkable influence of gender. Though the performance of the students involved in the present study was not encouraging, the fact remained that gender was not an issue; thus, given equal opportunities, both male and female

students could produce equal performances (Baxter, 2008). On the other hand, there were few studies (Waskita, 2008; Mwiigi, 2013) whose findings differ from the present finding. Waskita (2008) found a statistically significant difference between men's and women's performance in texts writing in English language. Mwiigi (2013) found a significant difference between males and females, with respect to performance as far as performance in English language is was concerned. These opposing findings are not surprising as it is likely that environmental factors, pure chance or other factors beyond the scope of the prior studies could influence performance of the two gender groups.

Further, the contrasting findings of these prior studies could also be attributed to the fact that they focused on participants other than basic school students. This could imply that the methods employed by teachers in teaching participants considered by prior authors might be different from the methods used by the teachers at the basic schools in the Mfantseman Municipality, and this might be due to the levels of the participants being considered and the subject matter. The local language, Fante, used by the teachers at the basic schools in the Mfantseman Municipality in conjunction with the English language could also be a contributory factor to students' overall understanding of English concepts taught and hence leading to similar levels of performance among both male and female students.

Besides, Lakoff's (1975) theory distinguished women's language from men's language, just as Tannen (1990) presented male and female as separate cultures, linguistically. These may, to some extent, explain the contrasting

findings of some of the prior studies. However, as stated earlier, the fact that the difference between male and female students with respect to morphological awareness is not significant does not mean the average scores of male and female students, at every point in time, are equal. Just as reported in this study, females had marginally higher level of awareness in morphology than their male counterparts; only that, this difference was not statistically significant.

In summary, there have been varied findings as far as significance of the difference between male and female, with respect to academic performance in English language (e.g., morphological awareness), is concerned. As some of the prior studies found significant difference, others found insignificant difference between males and females, with regards to performance in academic tasks related to English. The current study showed that, statistically, there is no significant difference between male and female students at basic schools in the Mfantseman Municipality, with respect to morphological awareness; hence, the researcher failed to reject the null hypothesis tested. In other words, the alternate hypothesis has been rejected.

Reading Comprehension and Gender

This objective sought to find out whether there is difference in reading comprehension in English language among students at basic schools in the Mfantseman Municipality of Ghana, with respect to gender. To achieve this objective, the researcher carried out a two-independent samples t-test. The results are displayed in Table 9.

Table 9: Independent T-Statistics (N = 317)

Variable	Gender	Mean	SD	SE	Df	t-value	p-value
Reading	Female	66.19	27.18	1.98	515	4.003	0.390
comprehension	Male	68.83	25.71	2.27			

Note: SD = standard deviation, SE = standard error
 Source: Field survey (2021)

Before the analysis in Table 9, the Levene's Test for Equality of Variances was conducted. This statistics tested the assumption of homogeneity of variance. The Levene's Test for Equality of Variances showed a probability value of ($p = 0.65$). This implies that there is no statistically significant difference between the number of male ($n = 128$) and the number of female ($n = 189$) students involved in the study. Thus, the homogeneity of variance assumption was upheld, meaning Equality of Means analysis could be conducted to compare the two groups.

From Table 9, the mean score for the female students was ($M = 66.19\% \pm 27.18\%SD$) and that for male students was ($M = 68.83\% \pm 25.71\%SD$). From these results, it could be inferred that there was a slight difference between male and female basic school students in the Mfantseman Municipality, with respect to reading comprehension competence. Nonetheless, this difference was insignificant ($p = 0.390$), as the p-value produced was greater than 0.05; hence, failure to reject the hypothesis that, "*There is no statistically significant difference in reading comprehension in English language among students at basic schools in the Mfantseman Municipality of Ghana with respect to gender.*"

From this result, it could be stated that the difference between the mean scores of male and female students was likely due to chance and not as a result of manipulation of the independent samples. This means that, though the male students at basic schools in the Mfantseman Municipality have fairly higher competence in reading comprehension than their female counterparts, this difference can only be regarded as pure chance, as the difference was revealed to be insignificant. In other words, gender has no significant influence on reading comprehension competence of students at basic schools in the Mfantseman Municipality. This might be due to the fact that both the male and female students involved in this study were taught by English teachers who had the required qualifications to teach English language at the basic level and, as well, employed the appropriate teaching and learning materials for teaching reading comprehension.

The present finding supported the findings of some prior studies. For instance, Badian (1999) found that male and female students' overall results varied, however these variations were not deemed to be statistically significant. Similarly, Denton et al. (2014) discovered that female students outscored their male counterparts in reading comprehension competitions; nonetheless, no discernible difference in the results of the two gender groups could be established. Arellano (2013) also found that while gender does not significantly affect reading comprehension, females do better than males in this area. Arellano then explained the disparity by citing factors related to aptitude, upbringing, and environment.

Also, this finding was in line with the findings of Logan and Johnston (2010). Logan and Johnston found a slight difference between males and females, with respect to reading comprehension, and this difference favoured the male participants. Nonetheless, the difference was found to be insignificant, just as found in this study. Again, but in a different study, Logan and Johnston (2009) found girls to have outperformed their boy counterparts in a reading comprehension tests; yet, the difference was found to be insignificant. In both studies, Logan and Johnston ascribed the cause of the difference to behavioural factors, motivational factors, cognitive abilities, and brain activation. All this goes to explain that gender actually has no significant influence on reading comprehension of basic school students.

Further, this finding was consistent with the performativity theory (Baxter, 2008) which advances that both male and female can perform equally, given equal opportunity, without any notable influence of gender. On the other hand, there were studies (Brantmeier, 2003; Bray, & Barron, 2004; Lafontaine, & Monseur, 2009; Pae, 2003; Wei, 2009) whose findings the current finding was not consistent with. Brantmeier (2003) found a statistically significant difference between males and females, with respect to reading comprehension, and similar findings were reported by Bray and Barron (2004), Lafontaine and Monseur (2009), Pae (2003), and Wei (2009). These contrasting findings were not surprising as there was likelihood that factors other than gender might have induced the differences in the reading comprehension of males and females.

Additionally, Lakoff's (1975) theory distinguished females' language from males' language, just as Tannen (1990) presented male and female as linguistically separate cultures. These may, to some extent, explain the opposing findings of some of the previous studies. Nevertheless, as mentioned earlier, the fact that the difference between male and female students with respect to reading comprehension is insignificant does not mean the mean scores of male and female students, at every point in time, will be equal. As reported in this study, females obtained a fairly higher average score in reading comprehension than their male counterparts; only that, this difference was not statistically significant.

All in all, there have been divergent findings as far as significance of the difference between males and females, with regards to reading comprehension in English language, is concerned. As some of the previous studies reported significant difference, others found insignificant difference between males and females, with respect to reading comprehension. The current study, on the other hand, revealed that, statistically, there was no significant difference between male and female students at basic schools in the Mfantseman Municipality, with respect to reading comprehension; hence, the researcher rejected the alternate hypothesis and upheld the null hypothesis.

Morphological Awareness and Reading Comprehension

The third objective of the study sought to analyse the relationship between morphological awareness and reading comprehension in English language of students at basic schools in the Mfantseman Municipality. The researcher sought to find out the relationship between the two variables, as well as the effect of

morphological awareness on reading comprehension in English language. To achieve this objective, the Pearson correlation coefficient was computed to obtain the extent of association between the constructs, and regression analysis to examine the effect of morphological awareness on reading comprehension in English language. The results are shown in Table 12 and 13.

Table 10: Correlation Coefficients

Constructs	Morphological awareness	Reading comprehension
Morphological awareness	1	
Reading comprehension	0.273**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Field survey (2021)

N = 317

The results indicate a positive but weak relationship between morphological awareness and reading comprehension ($r = 0.271$, $p < 0.01$). This finding suggests that as the morphological awareness of students at the basic schools in the Mfantseman Municipality increases, their reading comprehension will improve as well, and the reverse is true. This finding was not surprising as knowledge of how complex words are formed contributes positively to vocabulary growth of students and word pronunciation, all of which serve as precursors to fluency in reading.

This finding corroborates the findings of Carlisle (2000) and Ellis (2008). Carlisle (2000) found a statistically significant positive relationship between morphological awareness and reading comprehension among students. Similarly, Ellis (2008) reported that there is an association between knowledge in morphology and reading comprehension. Also, this finding correlates with the

findings of Castles et al. (2018) who opined that the more an individual becomes aware of words, morphologically, the more the person becomes advanced in reading. Likewise, Van de Werff (2020) found morphological awareness to be a significant predictor for vocabulary knowledge which in turn showed a strong positive effect on reading attitudes of students.

Furthermore, Nagy et al. (2006) found morphological awareness to have made a significantly unique contribution to reading comprehension, reading vocabulary and spelling. This result further shows consistency with the findings of Tighe and Binder (2015), and Tighe and Schatschneider (2014). Tighe and Binder (2015) revealed that morphological awareness correlates significantly with reading comprehension, as study participants who performed more precisely and quicker on matched control words and morphologically complex words performed creditably in reading comprehension exercises. Similarly, Tighe and Schatschneider (2014) found morphological awareness and vocabulary knowledge to have explained a large proportion, between 85% and 95%, of the variance in reading comprehension skills.

Moreover, this finding is consistent with the findings of Stoffelsma et al., 2020 and Ku and Anderson (2003) who looked at the effect of morphological awareness on reading comprehension. For instance, Stoffelsma et al. (2020) found morphological awareness to have positive influence on reading. In similar manner, Ku and Anderson (2003) found morphological awareness to be a significant predictor of better vocabulary building by students, as well as reading

comprehension of both English-speaking students and Chinese-speaking students.

Ultimately, this finding could be said to correlate with the performativity theory (Baxter, 2008) which drew on availability of resources and claimed that individuals could perform better at any level if the requisite resources are available. This implies that students at the basic schools in the Mfantseman Municipality could perform better in both morphological awareness and reading comprehension in English language if all the materials and resources needed to empower them were available. Thus, it is not surprising that a significant positive relationship was found between morphological awareness and reading comprehension of students at basic schools in the Mfantseman Municipality.

In summary, the foregoing discussion points to the fact that the more students at the basic schools in the Mfantseman Municipality improve their morphological awareness, the more their performances in reading comprehension in English language are expected to improve. This was shown in the results as morphological awareness was found to have positive and significant correlation with reading comprehension, as well as significant positive effect on reading comprehension. Therefore, for students to improve their reading comprehension in English language, there is the need to pay attention to morphological awareness in English language.

Chapter Summary

This chapter presented results and discussion of the study. The presentation and discussion were done, considering the research objectives.

Before the main analysis to achieve the research objectives, the participants' socio-demographic information was analysed. The participants were basic school students at JHS1, JHS2 and JHS3, and included 128 female students and 189 male students who were between the ages of less than 15years up to 20years. All the participants could read and understand texts in English language.

Considering the main findings, it was revealed that there was no significant difference between male and female students in the basic schools at the Mfantseman Municipality, with respect to morphological awareness and reading comprehension in English language; hence, the researcher failed to reject the first and second null hypotheses. However, the third null hypothesis was rejected, as the analyses revealed that there was a statistically significant relationship between morphological awareness and reading comprehension in English language.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter aims at presenting the summary, key findings, implications, and recommendations of this study. The summary presents a brief overview of the problem statement, objectives, research methods and analytical techniques employed, as well as the study findings. Key findings section focuses on the summary of the main findings of the study. On the other hand, the implications of the study draw conclusions and summarise specific implications for policy, practice, science and scholarship regarding the findings of the study with cognisance of the research objectives. The recommendations section present specific workable suggestions for implementation by relevant institutions and individuals involved in education and language. The chapter closes with suggestions for further research in the area of the current topic.

Summary

After having an encounter with students from the basic schools, especially the junior high students, in the Mfantseman Municipality of Ghana, it was realised that as some of these students demonstrated good sense of morphological awareness – in their sentence constructions, and upholding of grammatical rules – others seemed to lose grasp of the concept of morphology. The issue was not different after considering reading comprehension in English language among these students. A similar phenomenon was confirmed by some previous studies

which considered achievement in general English language among tertiary students (Waskita, 2008; Latifa, 2018). However, it became difficult to comprehend when those who seemed to lose grasp of morphology demonstrated good performance reading comprehension in the English language, and vice versa. This made it difficult to infer any form of relationship between morphological awareness and reading comprehension in English language.

The researcher formulated three research objectives, and three hypotheses. The study objectives included assessment of whether there is difference in morphological awareness in English language among students at basic schools in the Mfantseman Municipality of Ghana with respect to gender; examination of whether there is difference in performance in reading comprehension in English language among students at basic schools in the Mfantseman Municipality of Ghana with respect to gender, and finally, analysis of the relationship between morphological awareness and reading comprehension in English language of students at basic schools in the Mfantseman Municipality of Ghana.

The researcher proceeded to review relevant theories and empirical studies related to this study, as well as the presentation of a conceptual framework which was informed by the knowledge drawn from the theories and prior studies reviewed, giving cognisance of the study objectives and hypotheses. With respect to design, the positivist paradigm was deemed appropriate for the study as the quantitative research approach and the correlational design were employed. The study exclusively focused on the junior high students at the basic schools in the Mfantseman Municipality of Ghana. A total number of 317 students (189 males

and 128 females), selected using the proportional random sampling technique, were involved in the study. The instruments used for data collection were Morphological Awareness Test and the Reading Comprehension Achievement Test. Frequencies, percentages, mean, standard deviation, Pearson correlation and regression techniques were used to analyse the data collected.

Key Findings in Relation to Research Objectives

The first objective of the study sought to find out whether there is difference in morphological awareness in English language among students at basic schools in the Mfantseman Municipality of Ghana with respect to gender. Though the results showed female students to have a relatively higher average score than their male counterparts, it was revealed that there is no significant difference between male and female students at the basic schools in the Mfantseman Municipality, when it comes to morphological awareness. In other words, gender has no influence on students' awareness level in morphology – males and females are, statistically speaking, the same in this regard.

The second objective of the study sought to find out whether there is difference in performance in reading comprehension in English language among students at basic schools in the Mfantseman Municipality of Ghana with respect to gender. The results showed female students to have obtained a relatively higher average score in reading comprehension than their male counterparts; nevertheless, this difference was revealed to be statistically insignificant between male and female students at the basic schools in the Mfantseman Municipality,

with regards to reading comprehension. Put differently, gender has no influence on reading comprehension.

Finally, the third objective sought to find out if there is a relationship between morphological awareness and reading comprehension in English language of students at basic schools in the Mfantseman Municipality of Ghana. The findings revealed a significant positive correlation between morphological awareness and reading comprehension in English language of students at basic schools in the Mfantseman Municipality, as well as a significant positive effect of morphological awareness on reading comprehension in English language of students at basic schools in the Mfantseman Municipality of Ghana.

Implications of the Study

The present study can be seen as building on existing studies, adding knowledge to the field of language and gender – especially among basic school students in the Ghanaian context. Specifically, the findings of this study have implications for practice, policy, and theory, and these are discussed below.

Implications for practice

The main purpose of this study was to address the almost complete lack of empirical evidence (Brantmeier, 2003; Nagy et al., 2006; Stoffelsma et al., 2020) on morphological awareness and reading comprehension in English language, taking into consideration the influence of gender on basic school students. This has been done by directly analysing morphological awareness and reading comprehension data collected from students, taking into consideration their gender – male or female. The study, thus, has practical implications for basic

school teachers, especially English language teachers; heads of basic schools; policy and decision makers; the student body, as well as other stakeholders in education.

This study has shown that no matter how society might perceive male and female students, especially those in the basic schools, care should be taken when discussing gender difference with respect to competence level in English language, in order to avoid unnecessary exaggerations. Considering the first finding, it is obvious that male and female students have a lot in common as their performances in morphological awareness showed no significant difference between the two groups. This implies that, if chances are put aside, it will be difficult to draw a line of difference between male and female basic school students, as far as morphological awareness is concerned, as both can put up good performances in a given environment (Waskita, 2008; Mwiigi, 2013; Fidelia, 2015).

This suggests that basic school authorities and other stakeholders should try and create a good environment where male and female students naturally learn from one another; in particular, from colleagues with in-depth knowledge in a given aspect of the English language. Teachers should also try to assign same responsibilities to male and female students, giving them a sense of equality as far as academic activities are concerned, rather than perceiving them as separate cultures (Tannen, 1990) which exude efficacies in separate settings. Practising this, there is a high likelihood of unleashing the competitive prowess in both genders, as this will make both male and female basic school students to consider

themselves as capable of achieving greater performances, and that no performance level is exclusively associated with a particular gender group.

A second important implication of the study can be derived from the findings on reading comprehension, with respect to gender. Observations made by the researcher during the data collection pointed to a specific set of ways used by male and female students in the reading comprehension exercise; these ways could be considered by the basic school teachers so that they could adopt a single strategy in teaching both male and female students, as far as reading comprehension is concerned, as the English teachers at the schools involved in this study assisted with the data collection exercise.

Also, practically, other related subjects can be taught to both male and female students, applying the same pedagogical approaches and styles. More specifically, subjects which have been considered to be for only a specific gender group (Unity, & Igbudu, 2015) can now be encouraged among all students, irrespective of gender. This way, issues of gender inequality, even in academia, can be dealt with to boost the confidence levels of, especially, female students to compete favourably with their male counterparts. This notwithstanding, it should also be pointed out that the conclusions drawn from these findings can be felt in reality if effective implementations are embarked on.

Furthermore, the third finding implies that morphological awareness correlates with reading comprehension, and as well, predicts students' performance in reading comprehension in English language. This goes to say that, practically, basic school teachers could adopt any best strategy, without worrying

about which gender group it fits better, to teach all their students to get grasp of morphology and reading comprehension in the English language, ignoring gender boundaries. These, to the present researcher, are a great contribution of this study to practice.

Implications for policy making

In relation to the study's implications for policy, and policy makers, the findings pointed to the fact that a single policy, to some extent, could be developed to cater for both male and female students at basic schools in Ghana. Throughout the local literature reviewed (Asemanyi, 2015; Owusu-Acheaw, 2014; GES, 2020), the researcher did not become aware of any facts that Ghanaian educational agencies, such as the Ghana Education Service (GES), among others, have formulated policies which considered both male and female students as a single entity. The focus has been on achieving equality, which only makes it obvious the focus has only been on the age-old perceived gaps (Waskita, 2008; Mwiigi, 2013; Fidelia, 2015) between male and female students.

With the current findings, educational stakeholders and policy makers can make clear cut policies which will specifically focus on both male and female students together, without having to carve out separate policies for each gender group. Doing this, the issue of inequality is likely to fade out of the educational system as the issue of males are better at 'this' and females are better at 'that' will be no more. It is then in the right direction to say that basic school authorities should ensure that both female and male students are seen to have similar levels

of abilities and intellects to perform their academic tasks, including morphology and reading comprehension in English language.

Conclusions

Generally, it was realised from the study that gender is not a noteworthy factor that determines students' performance in both morphological awareness and reading comprehension at basic schools in the Mfantseman Municipality. This suggests all students can put up appreciable performances in morphological awareness and reading comprehension regardless of gender. Moreover, a relationship between morphological awareness and reading comprehension among basic school students in the Mfantseman Municipality has been established, that improved level of morphological awareness is required for high reading comprehension competence. Thus, to resolve the problem of poor reading comprehension among basic school students in the Mfantseman Municipality, there is the need to focus on developing and improving students' knowledge of morphology in English language.

Recommendations

It is imperative to make recommendations which may positively influence the reading habits and morphology related activities of students, irrespective of being a male or a female. First, the Ministry of Education, through the heads of basic schools in Ghana and other authorities and stakeholders in education, should develop and implement policies which are directly focused on developing the morphological knowledge of basic school students. These policies should focus on both male and female students, without giving attention to only one of these

two groups. This will ensure that both male and female students benefit equally from these policies.

Second, the heads of basic schools in Ghana should encourage the teachers to introduce a programme which engages basic school students in competitive reading comprehension activities, without gender barriers. This programme will ensure that students compete among themselves, by reading simple and complex texts, in order to demonstrate their knowledge of how to recognise words, pronounce them, and read passages fluently. This programme can be done every academic term, and equal number of male and female students presented each term's competition.

Third, heads of basic schools should encourage English language teachers to give the same level of attention to both morphology related lessons and reading comprehension lessons. This will make the students also pay attention to these two aspects of the English language, as they – morphological awareness and reading comprehension – have been found in this study to be related and that an improvement in one will lead to an improvement in the other.

Suggestions for Further Studies

A number of gaps have been identified in literature; some have been addressed by prior researchers, and the current study has taken care of one too. However, there seems to be a lot more that can be investigated as far as the current topic is concerned. For instance, further studies can look at the effect of age of basic school students on their performance in reading comprehension and morphological awareness. Also, future studies can investigate whether the type of

basic school (private or public) attended by students influences their reading comprehension and morphological awareness.



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APPENDIX

SURVEY

Dear Participant,

This survey is meant to collect data for a study on *The Relationship between Students' Morphological Awareness and Reading Comprehension in English Language at Selected Basic Schools in the Mfantseman Municipality, Ghana*. Data collected will be used for research purpose and nothing else. The data will be kept confidential and secure. This will take about 60 minutes to complete.

Thank you.

Mabel Selasi Quashigah (Lead Investigator – 0246610074)

Instructions:

- i. This survey is made up of two separate instruments – instrument on Morphological Awareness (Morphological Awareness Test) and instrument on Reading Comprehension (Reading Comprehension Test). The *Morphological Awareness Test* consists of 20 multiple choice questions to be completed in 30 minutes. The *Reading Comprehension Test* consists of two parts – Part I (a passage to be read aloud) and Part II (5 questions based on the passage read in Part I), and will take about 30 minutes to complete.
- ii. Before you proceed to the tests, kindly indicate, by ticking one of the boxes in each case below, as applicable to you. Also, write the *code* you are assigned in the first box.

a. Code

b. Gender: Male Female c. Age: < 15years 15years – 19years ≥ 20years d. Class: JHS 1 JHS 2 JHS 3 e. Can you read and understand? Yes No **MORPHOLOGICAL AWARENESS TEST***Kindly attempt all questions**30 minutes**20marks*

*From the words lettered A to D, choose the one which is the **noun form** of the underlined word.*

1. His friends always deride his efforts to write poetry.
 (A) derisive (B) derideness (C) derision (D) deriliction
2. There is no way he can redeem his image.
 (A) redemption (B) redeeming (C) redeemness (D) redemption
3. Cannot advocate increasing the charges.
 (A) advocatement (B) advocateness (C) advocativeness (D) advocacy
4. How do you mean to convey your load?
 (A) Conveyance (B) conveyness (C) conveyment (D) conveying
5. Your suggestions are not feasible.
 (A) Feasibility (B) feasibleness (C) feasibility (D) infeasibility
6. He had to reassure his people
 (A) Reassuring (B) reassurenness (C) reassurance (D) reassuring

7. The Principal promised to prohibit the students from sneaking out of the school.
(A) Prohibitive (B) prohibition (C) prohibitory (D) prohibitionist

8. You cannot predict the future
(A) Prediction (B) predication (C) predictable (D) predictive

9. He said he would prefer Janet to Josephine.
(A) Preferment (B) preferring (C) preference (D) preferness

10. It is a good idea for students to compare notes.
(A) Comparative (B) compartment (C) comparing (D) comparison.

*From the options given, choose the word that is the **adjective form** of the underlined words.*

11. I desire nothing but good name.
(A) desiring (B) desirous (C) desiredly (D) desirously

12. I abhor every indecent act.
(A) abhorrent (B) abhorrence (C) abhorrently (D) abhorringly

13. He is a man of the people.
(A) Populous (B) popular (C) popularly (D) people- like

14. Put the rag on the rack.
(A) ragly (B) raggedly (C) ragged (D) rag- like

15. Don't reveal your own secret.
(A) revealful (B) revealed (C) revealingly (D) revealing

16. It was said of him that he preferred dictation to dialogue.
(A) dictate (B) dictator (C) dictatorial (D) dictatorship

17. John gave his brother four pencils.
(A) fourthly (B) fourth (C) fourscore (D) foursome

18. This is just a fragment of what happened.
(A) fragmental (B) fragmentally (C) fragmentary (D) fragmentarily

19. He was accused of fraud in the office.

- (A) fraught (B) fraudulent (C) fraudulence (D) fraudulently

20. Her standard of hygiene was not as high as expected of her.
 (A) hygienistic (B) hygienist (C) hygienics (D) hygienic

THE END

READING COMPREHENSION TEST

Part I - Reading

Kindly read the following page aloud

Long before **colonial times**, in the **hilly region** of France, there was a **silly** young prince in *search* of a **lover**. All his wealth did not make a **difference** because he was very lonely in his *large, empty palace*. He *wanted* a **lady** to cook him **dinner** and clean his **dirty** home. He *needed* to add **flavour** to his **cookery** and style to his dull *house*. But first he had to make a **confession**—before he was a prince, he was a **beggar** and a *thief*. He *entered* the lottery and became a **winner**. Despite his financial **security**, he was afraid and **secretive**. It was a **fearsome** worry that someone would discover his **past**.

One day a **pretty** woman *wearing* a **stylish** dress with a **flowery** design *walked* by the castle. She was *singing* a beautiful melody. He *looked* at her with **intensity** and *liked* her **sparkly earrings** and *blonde* hair. He was drawn to her **natural beauty**. He went up to her with **confidence** and invited her to the annual music **convention**. *Realizing* his **sincerity** and *charming good looks*, she said yes. They sat on the *grass beneath* a **shady tree** to enjoy the **serenity** of the afternoon and *discuss* their *mutual preference* for **classical** music. He took her to the *opera* and the *ballet*.

The prince could not stop *smiling* because he felt so **lucky**. The couple began *spending* every moment together. The prince's *friends* took his **dependence** on her for **stupidity** and lack of **maturity**. He was hurt by the **severity** of their opinions. But he did **hover** and cling to her the **majority** of the time. He gave her a *hundred presents* and *asked* her to marry him. She *explained* her **cultural** beliefs—since she was the youngest daughter, she had to *stay* home and take care of her mother. He looked at her in **puzzlement** and his heart broke to *pieces*. He was alone again, still in search of his princess.

(Bold words are from the Carlisle and Stone (2005); italicised words are inflected types)

Part II - Comprehension

Kindly respond to the following questions, based on the passage above.

1. What confession did the prince have to make?
2. What was it about the Prince's past that he would not want anyone to discover?
3. According to the passage, how was the pretty woman's dress described?
4. According to the passage, why did the pretty woman say yes to the prince?
5. Why could the prince not stop smiling?