UNIVERSITY OF CAPE COAST

EFFECT OF GRAPHIC ORGANIZERS ON BASIC FOUR (B4) PUPILS' READING COMPREHENSION ACHIEVEMENT IN EFFUTU MUNICIPALITY

JOHN DARKO DUAH

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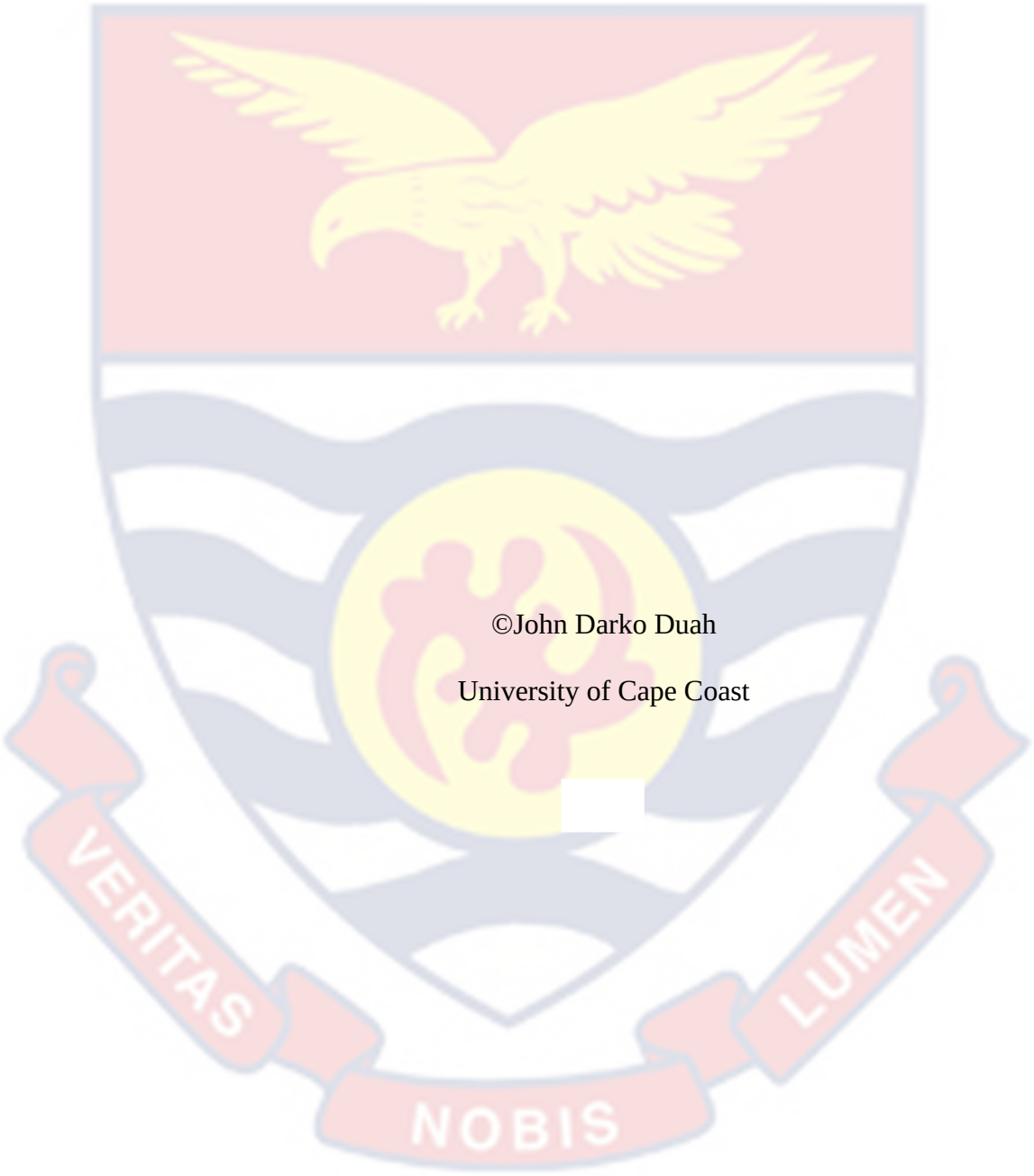

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BY

JOHN DARKO DUAH

Thesis submitted to the Department of Basic Education of the Faculty of Educational Foundations, College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy degree in Basic Education

JUNE 2023

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 presented for another degree in this university or elsewhere.

Name: ……

Signature…… Date…….....

Supervisor's Declaration

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

Name: ……

Signature: …… Date…….....

ABSTRACT

This thesis examined the effect of graphic organizers (KWL, Story Map as well as Four-Corner Vocabulary Chart) on pupils' reading comprehension achievement. The study followed quasi-experimental design. Simple random sampling without replacement, precisely the lottery method, was used to sample 2 schools out of 25 schools after which purposive sampling was used to select Basic Four pupils of each of the two schools. The sample size was 84 Basic Four (B4) pupils of which 40 belonged to school B and 44 belonged to School A. Data were collected using a comprehension achievement test created by the investigator. Using the KR20 reliability coefficient, it was discovered that the pretest's consistency coefficient was 0.75 and that of the posttest was 0.74. With the help of SPSS version 26.0, data collected were analysed by the use of paired-sample t-test and independent t-test as well as Two-Way Analysis of Covariance. The finding was that guiding pupils with graphic organizers improved their comprehension achievement significantly. K-W-L Chart significantly improved the pupils' ability to make inferences and recall issues in a given narrative text, story map significantly improved pupils' ability to identify characters and setting in narrative text and FCVC improved pupils' vocabularies significantly. The use of graphic organizers for comprehension did not differ significantly between males and females. It was also found that guiding pupils with graphic organizers in understanding narrative texts improved their comprehension achievement significantly as compared to convention method. It was proposed that Ghanaian educational bodies should incorporate graphic organizers into the curriculum, train facilitators on how to use organizers to help pupils read and comprehend, and encourage facilitators to use them.

KEYWORDS

Graphic Organizers

Reading Comprehension Achievement

Schema Theory

Pupils

KWL Chart

Story Map

Four-Corner Vocabulary Chart

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DEDICATION

To my entire family and friends who sought to help make me a better person.

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CHAPTER ONE

INTRODUCTION

The goal of this study was to discover the effect graphic organizers (Know-Want to know-Learned [K-W-L] Chart, Story Map and Four-Corner Vocabulary Chart) have on the comprehension achievement of basic four pupils in the Effutu Municipality of Ghana. It appeared that no literature accounted for the independent variable (K-W-L Chart, Story Map and Four-Corner Vocabulary Chart) studied in Ghanaian context. Hence, it was necessary to conduct the study to add to the literature. The study applied the schema theory of reading which is based on the cognitivist perspective of learning.

Background to the Study

Reading as a language skill is fundamental for English as a Second Language (ESL) teachers and pupils (Mehdi & Reza, 2017). Reading is, in fact, an essential component of all academic courses (Kim & Anderson, 2011; Salehi, Lari, & Rezanejad, 2014 cited in Gilakjani & Narjes, 2016). This means that every learner at every level of education must acquire and develop the ability to read if the learner wants to be successful in his or her education. On the contrary, if the learner lacks the ability to read, he or she is subjected to failure academically (Mehdi & Reza, 2017). This is authenticated by Mehdi and Reza (2017) who are of the view that readers' ability to read "allows pupils feel successful in accessing information from the targeted sources used in educational contexts but their inability to read can lead to a disturbing sense of detachment and worthlessness because it can unfavourably affect their learning outcomes extremely" (p. 312).

According to Gilakjani and Narjes (2016), pupils read books for a variety of reasons, ranging from getting knowledge to having fun. Reading allows pupils to become extra conversant with their major subjects while also improving their language skills. In addition, Yee (2010, as cited in Mehdi & Reza, 2017) reveals that reading ability helps pupils to feel confident. Also, reading, according to Meredith (2016), connects us to our culture and the values and ideas that our community upholds. Reading can also assist us in establishing our own thoughts about relationships (Chander, 2015). As a result, it can be said that reading is the medium through which pupils obtain knowledge in all subjects in the basic schools and beyond. Also, as cited in Rohani and Abdul (2017), it has been testified, specifically, from the United States Education Department that the key predictor of achievement is one's ability to read and comprehend a piece of writing. Consequently, it is unsurprising that reading comprehension is at the center of all courses, as it is crucial to cognitive growth. Moreover, according to Nassaji (2011) in Rohani and Abdul (2017), it is verified that individuals who improve their skills in reading actually do better and flourish more in all academic subjects. Surely, every learner must gain competence in reading.

However, gaining the ability to read proficiently without the ability to comprehend the text one reads is worthless. This may explain why, according to Goldenberg (2011), the fundamental goal of the reading process is often comprehension, with everything else functioning as a means to that end. This means that understanding what you're reading is vital. Before a reader can make sense of and apply what he or she has read, he or she must have good

comprehension abilities. People apply comprehension skills not only in school, but even in daily lives as well (Papatga & Ersoy, 2016).

Also, Bloom's (1995) idea that pupils' ability to comprehend serves as the foundation for their success in other classes, cannot be underestimated here. It is not surprising, therefore, for studies to reveal that comprehension has a direct relationship with academic subjects such as Mathematics and Science as English language (Papatga & Ersoy, 2016, p.125).

While English language is vital for the teaching and study of other topics in Ghanaian schools, it is also indisputable that a learner's ability to read and comprehend (along with listening, speaking, and writing) a text written or printed in English serves as key ability intended for academic achievement. Likewise, comprehension is one of the fundamental abilities that pupils must be taught because they succeed at school and in the community if they improve their comprehension skills (Papatga & Ersoy, 2016). Pupils employ these skills to study, and the skills have significant effect on the academic achievements. No wonder the National Council for Curriculum and Assessment [NaCCA] (2019) states that "the reader must be able to read coherently and must be able to answer questions arising from the passage read. He/she should also be able to summarise passages read in his/her own words to show understanding of the passages" (p.7).

Unfortunately, Pardede (2019) specified that pupils think of reading as quite tough and are not motivated to read. Similarly, Fitrawati (2009) claims that many pupils have difficulty comprehending English literature. Also, researchers such as Papatga and Ersoy (2016), Satriyani, Moerdibjon and Prayogo (2016), Rohani and Abdul (2017), Albufalasa (2019) and Sari, Drajati

and Rochsantiningsih (2019) are of the view that the capability to decipher and understand the content of a particular text is a challenge for a large proportion of pupils around the world. As Rohani and Abdul (2017) put it, in their abstract, past studies reveal that English school children have difficulty comprehending the texts offered to them. Also, according to Pardede (2019), despite the importance reading most Language pupils struggle to grasp reading materials.

The problem of pupils' inability to read and understand text is not different from what is faced with Ghanaian basic school pupils. Pupils in Ghanaian basic schools have difficulties in excelling in their academic lives because they are unable to understand what they read. Meanwhile, if they continue to have difficulties in their academic lives, it will make them grow up to become unproductive in our Ghanaian community. That is, they may grow up to become unskilled human resources instead of skilled ones to manage the offices and the affairs to the country towards its development. At this juncture, it can be realised that pupils' ineptness in comprehension is not a phenomenon that will help the country. Hence, researchers have developed interest in experimenting reading tools that they assume to be appropriate in treating pupils' inabilities to read and comprehend what they read. One of these tools is guiding pupils to use graphic organizers, instead of using the conventional way where pupils read text several times to be able to respond to questions. Meanwhile, according to Firmanto (2005), reading is seen to be tedious and painful for many pupils, due to overly long reading texts, unfamiliar language and lack of pre-reading exercises engaging the pupils' background knowledge. Aside that, according to Kweldju (1996), pupils are uninterested in reading texts due to lack of prior knowledge. Therefore, it is anticipated that when pupils are

guided with appropriate resources that will help in activating pupils' schema before a text is read, it will be beneficial to their understanding of a text. This is verified by Pardede (2019) who affirms that a pupil's previous knowledge interacts with reading lesson through schemas, which highlight how a pupil's prior skills and experiences with environment is vital to comprehending a book. In finding an effective resource to aid pupils' comprehension and in order to activate a learner's schema, organizers were proposed by researchers.

Most importantly, Graphic Organizers (GOs) have been verified to not only stimulate pupils' previous knowledge but also, to aid comprehension of great amount of information within a short time, and to organise information into paragraphs for easier comprehension (Praveen & Rajan, 2013). Also, graphic organizers have been verified and accepted by the schema theorists to be very effective tools that enhance reading comprehension.

Specifically, the use of K-W-L Chart is believed to be an effective graphic organizer that guides a learner at all stages of reading a text. According to Ogle (1986) as cited in Sridharan and Nur Ehsan (2020), KWL is a tristage organiser that develops pupils' ability to grasp whatever they read on their own. Likewise, through the K-W-L Chart, facilitators activate pupils' prior knowledge and they collaborate in a discussion, whether whole class or small group, to set objectives for lesson and have discourse on lessons learned (Ria & Ridha, 2017; Sridharan & Nur Ehsan, 2020). In addition, Story Maps are graphic organizers that are used to ease pupils' identification, organization, and analysis of elements of story passage. According to Tamsil, Sofian and Bunau (2020), Story Mapping is an approach that involves using a visual to assist pupils recognize and realize the components (characters, plot, setting, problem,

and solution) of a novel. Furthermore, it is believed that a reader cannot understand a text without understanding words in the text. Vocabulary is therefore crucial in reading comprehension. The usage of a four-corner vocabulary chart ensures that pupils not only memorize definitions of words but also construct conceptual representations of words in a variety of contexts (Bruce, Mraz, Nichols, Rickelman & Wood, 2009). Therefore, it was believed that using visual organizers to guide pupils would improve their reading comprehension. Researchers like Rohani and Abdul (2017) and Kans (2017) tested using graphic organizers as a comprehension tool and discovered a beneficial influence on pupils' reading comprehension. On contrary, Hidayanti (2018) discovered that graphic organizers have little influence on reading comprehension. This means that different researchers find different results at different settings (including time years) with same reading tool. Besides, using these strategies for pupils' comprehension looks foreign to Ghanaian literature: it appears that there is no evidence of a Ghanaian study on the influence of graphic organizers on comprehension among pupils.

Also, importantly, it is a common misconception that females master language with greater speed than males do. The study of how males and females learn languages differently has received a lot of consideration, and significant proof suggests that females routinely surpass males in several language-acquisition domains (Wyk & Mostert, 2016). Numerous studies have focused on sex disparities in language learning, specifically in the context of learning English, and they suggest that the discussion of these issues is far from done. As an illustration of sex difference in comprehension of texts, Cesiko (2017) investigated sex gaps in the reading comprehension of grade three rural

pupils and discovered an important distinction between boys and girls in the English language reading comprehension test. Nevertheless, as noted by Maulina (2018), there still seems to be room for discussion regarding how sex affects English learning and comprehension. Besides, some researchers have found conflicting results where males and females used the organizers to achieve equally (Owolabi & Adaramati, 2015) and where females who used the organizers outperformed males who used the organizers (Nasab & Motlagh, 2017). It was therefore important to find out sex difference in the comprehension achievement while using graphic organizers.

Consequently, despite the fact that the tools worked on some foreign pupils (Rohani & Abdul, 2017; Kans, 2017), it cannot be generalized to pupils in the Ghanaian basic schools. Besides, practical issues cannot be grounded on assumptions but on empirical evidences. As a result, the study was aimed at finding the influence "graphic organizers" have on pupils' comprehension through quasi-experimental design. It sought to find the effect of K-W-L on pupils' ability to gain knowledge and make inferences from a text read. In addition, it really was necessary to determine the story map's effect on pupils' ability to identify setting and characters in a narrative text. The researcher also wanted to see how the Four-Corner Vocabulary Chart affected leaners' word knowledge. It also intended to determine which sex between males and females does better in using graphic organisers to achieve in reading, as investigated by Pardede, Odewumi, Gambari and Bada (2019).

Statement of the Problem

Despite the essence of comprehension in the academic life of an individual, the ability of a pupil to read and comprehend continues to be challenging in Ghana (Ghartey, 2010; Hamid, 2018; Ntim, 2017). Hence, Ghanaian pupils struggle to read efficiently, think independently, and acquire problem-solving skills (Ntim, 2017). Meanwhile, the Primary School English Language curriculum of Ghana demands that a pupil should have the ability to read logically, summarize texts and give answers to questions concerning a text he or she reads (NaCCA, 2019).

Consequently, researchers have given attention to the use of graphic organizers in curbing reading comprehension difficulties (e.g. Rohani and Abdul, 2017; Kans, 2017; Hidayanti, 2018) but have come out with conflicting findings. Thus some researchers (e.g. Rohani and Abdul, 2017; Kans, 2017) found significant effect while others (e.g. Hidayanti, 2018) found insignificant effect of graphic organizers on pupils' reading comprehension at different settings but with the same reading tool (Graphic Organizers). Hence, the result of using organizers for pupils' comprehension of a text cannot be judged to be significant or insignificant worldwide.

Besides, it appears that there are few or no research in Ghana that consider the influence of organisers on pupils' comprehension of narrative texts. Thus, even though Ghanaian researchers (e.g Hamid, 2018; Ntim, 2018; Nyarko, Kugbey, Kofi, Cole & Adentwi, 2018) have examined reading, none of them considered the effects of organisers on pupils' comprehension of narrative texts. Hence, whether or not organizers would have substantial effect on the comprehension achievement of Ghanaian basic school pupils remains unknown.

This situation in Ghana backs up the idea that the absence of studies on graphic organisers with English language pupils is a key unresolved problem (Jiang & Grabe, 2007).

In addition, the joint influence of sex and graphic organizers on pupils' academic progress is also examined in the literature (Owolabi and Adaramati, 2015) and there were no differences in achievement between males and females who used graphic organisers to achieve in comprehension in the context of Nigeria. On the contrary, Nasab and Motlagh (2017) found out that females used graphic organizers to achieve in reading twice as compared to what males could achieve. Aside the difference in findings, there appears to be no literature on the effects of sex on graphic organizers on pupils' comprehension achievement in Ghana.

Basic 3 is a transitional class in Ghana that serves as a bridge between Lower and Upper Grade levels. Pupils in Basic 4 who just completed Lower Primary, where native language was the principal means of teaching, often struggle to adapt to English, the main language for instruction in Basic 4 (Abudu, 2017). As evident in Abudu (2017), academic achievement tends to be highly connected with one's English proficiency, especially in a country like Ghana that has English as lingua franca. Hence, if pupils are not aided during this beginning period in building a comprehensive grounding in their reading skills, they will face difficulty in accomplishing their educational objectives.

Consequently, because pupils' inability to comprehend texts will make them failures academically and will also affect the future of Ghana negatively, it was found to be important to test strategies that could help to curb the

situation. As mentioned before, graphic organisers were found to be common tools that many investigators had tested. However, using these tools appeared to be scarce in the Ghanaian literature. Hence, this study sought to find the effect of graphic organisers on pupils' comprehension in the context of some selected primary schools in Effutu, Winneba.

Purpose of the Study

The purpose of this study was to find the effect of graphic organizers (K-W-L Chart, Story Map and Four-Corner Vocabulary Chart) against conventional method on Basic Four (B4) pupils' reading comprehension achievement. It also looked for differences, in using of graphic organisers to comprehend texts, between males and females. Specifically, it sought to discover whether:

1. there is a statistically significant difference in pupils' mean score before they used graphic organizers and their mean score after pupils have used graphic organizers in reading comprehension.
2. there is a large discrepancy in text comprehension achievement across males and females who studied with Graphic Organisers.
3. there is statistically significant effect of graphic organizers against conventional method on pupils' reading comprehension achievement not.

Research Hypotheses

Ho1. There is no statistically significant difference in pretest mean score and posttest mean score of the Basic Four pupils who used graphic organizers in reading comprehension.

Ho2. There is no statistically significant difference in reading comprehension achievement posttest means scores between males and females Basic Four pupils who used graphic organisers.

Ho3. There is no statistically significant effect of graphic organizers on Basic Four pupils' reading comprehension achievement compared to conventional method**.**

Significance of the Study

In addition to the fact that the productive influence of graphic organizers on pupils' Comprehension achievement will provide insight into some effective tools for teaching English Comprehension, the study is expected to benefit pupils, facilitators, the Municipality, curriculum developers and Ghana as a whole.

First, the findings of this investigation will inform participants about approaches that can help them to advance their skills in comprehension. In addition, it will serve as reference for other facilitators, especially English Language facilitators to develop and implement tools that will help their pupils when they are faced with similar educational problems. Furthermore, it will help the Ghana Education Service (GES) to train facilitators on how to improve upon pupils' reading comprehension achievement during in-service training programs for facilitators. Also, the study's outcome will serve as a record for further studies to help policy makers and other institutional bodies like National Council of Curriculum and Assessment (NaCCA) to formulate policies for the basic school level so that the interventions shall be widely used in the Ghanaian society. It will also largely relieve the West African Examination Council and other examination bodies from the burden of reporting on pupils' poor

performance on reading comprehension and other equally important subjects. Finally, the study will service as an empirical study that adds literature to the study into reading comprehension especially in the Ghanaian context.

Delimitation of the Study

The study examines characteristics related to the effect Graphic Organisers have on pupils' reading comprehension. The investigation was delimited to the Effutu Municipality in the Central Region of Ghana. Likewise, the study centred on Basic Four (B4) pupils and not any other grade level. This is because "in reading comprehension context, Graphic Organizers can be effectively used in all lessons for pupils of all educational levels to check not only their understanding but also to motivate and enhance their thinking skills" (Horas & Damayanty, 2019, p. 69). Aside, the researcher intended to administer the treatments on Basic Four (B4) pupils of the public primary schools so that long-term effects of the teaching methods can be realised and traced transitionally. Also, Graphic Organizers (Four-Corner Vocabulary Chart, K-W-L Chart and Story Map), gender and reading comprehension achievement were the variables that were studied. Also, the investigation was also restricted to only English Language but no other subjects.

Limitations of the Study

The use of a quasi-experimental design was the most appropriate design to this study. However, because there was no random assignment, the design had an intrinsic restriction, which reduced the internal validity. This validity is due to differential selection which is a threat to selection validity. It would not have been a problem if one group was used. The use of two non-equivalent (unrelated) groups poses threat to selection validity. In experimental study it is

expected that all variables are same with members of the two groups (except maybe age, gender, and intelligence) (Amedahe & Gyimah, 2019) except for the independent variables (treatment). The challenges arise when two groups differ in characteristics apart from the treatment's variable and therefore, posttest differences could be attributed the differential selection variables instead of the treatments (Amedahe & Gyimah, 2019). Although the experiment used pupils from the very similar ability group, randomisation of participants into treatment group and control group could have increased the data's validity. Hence, the choice of non-equivalent groups could produce diverse rates of development not associated with the use of graphic organizers. The diverse rates of development could be credited to factors such as normal academic development.

Despite the fact that the study had some limitations, methods were established to control them. In dealing with the first limitation, even though matching of variables could have been done to reduce confounding variables, analyses using ANCOVA was done to handle the threats. This was done because according to Amedahe and Gyimah (2018) "analysis of Covariance reduces the effect of initial group differences by making compensating adjustments to the posttest means of the two groups" (p.202).

Definition of Terms/Meaning of Abbreviations

1. **Graphic Organizers**: They are lines and circles that are frequently used to create pictures that reflect structured and summarised information.
2. **Reading Comprehension Achievement**: The scores pupils get after assessing their reading comprehension abilities.

3. **Pupils:** Public basic school pupils
4. **GOs** – Graphic Organizers
5. **KWL Chart:** are organisers having three columns with the first column providing space for pupils to write what they know. The second column also provides space for pupils to set objectives for the lesson and the third column providing opportunity for pupils to write what they learned.
6. **Story Map:** an organiser used to record identified element of a prose.
7. **Four-Corner Vocabulary Chart (FCVC):** "FCVCs typically display a vocabulary word, illustration of the word, synonyms associated with the word, a sentence using a given vocabulary word, and a definition of the term in pupils' words" (Smith et al., 2016, p.69).

Organization of the Study

The study's report is subdivided into five areas. Chapter one covers the study's background, problem statement, study's purpose, research objectives, research questions and hypotheses, relevance of the study, delimitation and the study's constraints. Chapter Two discusses the pertinent literature associated to the study. It points out writings of vested researchers in related areas of the study. The third Chapter, in addition, talks about the research methodology. The design, study area, population, the size of the sample and the techniques for sampling, data collection instruments, procedures for data collection, and data analysis procedures are included. The data presentations, analyses and discussions of data are in the fourth chapter. Chapter Five summarizes the major study's finding, conclusions and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The study was aimed to find the effect Graphic Organisers (KWL, Story Map and Four-Corner Vocabulary Chart) have on pupils' reading comprehension achievement. It also looked for gender variations in the use of graphical organisers for text instruction. Specifically, this research sought to find out whether: there is a statistically significant difference in pupils' mean score before they used graphic organizers and their mean score after pupils have used graphic organizers in reading comprehension; there is a large discrepancy in text comprehension achievement across males and females who studied with Graphic Organisers; and there is statistically significant effect of graphic organizers against conventional method on pupils' reading comprehension achievement not.

This chapter examines pertinent and related literature to this subject. In this respect, some relevant theories have been reviewed; various concepts in the study have also been examined and empirical studies have also been reviewed.

Theoretical Framework

The Schema Theory of Reading

A variety of theories, including bottom-up, top-down, and interactive theories, have been proposed to explain reading and comprehension. The schema theory was given special consideration for the purposes of this study. According to Ngabut (2015), "the notion of schema and related concepts results from the development of research in cognitive science where the importance of background knowledge in language comprehension is found to exist" (p. 27).

According to Gillani (2010) and Zhang (2010), as stated in Quarshie (2017), cognitive scientists refer to the use of previous knowledge to analyze, organize, and store new knowledge as schema.

Schema is the background knowledge and experience pupils acquire to prepare them to be ready to absorb new material and cope with new activities or events (Dry, 2013). Also, in his point of view, Pardede (2019) upholds that a pupil's previous knowledge interacts with reading lesson through schemas, which highlight how a pupil's prior skills and experiences with the environment is vital to comprehending a book. Schemata, then, refer to knowledge that represents collections of situations, events, and things. It is the mental picture one has about something through his or her previous experience with that thing. For example, if a learner hears about school, what comes into his or her mind is that a school is a place where pupils learn while facilitators are teaching; there are chalkboards, books, classrooms and chairs and tables in school. This means that a learner can make inferences from life experience through schema (Anderson, 1994 as cited in Ntim, 2017).

As far as text comprehension is concerned, the ability of a learner to apply schemata or prior information is critical. As a result, in order for a student to comprehend a book, he or she must approach the text with active prior information, such as values, culture, beliefs, expectations, and systems (Hamid, 2018). Similarly, in accordance with Ntim (2017), when a particular schemas assists a learner in making various interpretations and inferences from written text by retrieving such knowledge from the long term memory, the learner's understanding (schema) of the text is improved. This means that prior

knowledge or experiences help a reader to make inferences that make the comprehension of a text easy.

Consequently, according to Anderson, Wang and Gaffney (2006) as cited in Ntim (2017), on the condition that a text successfully engages pupils' schemata or fore knowledge, they grasp information they read, and this is a significant mental predictive element for better understanding of texts. This implies that activating schema has a good effect on text comprehension, inferences, attention, and memory (Ngabut, 2015). If this is the case, it is reasonable to conclude that text comprehension is facilitated by a combination of the student's previous knowledge and the text. Hence, Ngabut's (2015) assertion that the notion that all inputs are matched against certain existing schema and that all parts of that schema should be consistent with the input guides the construction of meaning, cannot be underestimated.

However, pupils may lack schema that is relevant to the text in all circumstances. As a result, the reader may be unable to interpret the content. If this occurs, readers may require assistance in activating the relevant schema in order to understand the text (Pardede, 2019). As a result, the instructor must be prepared to participate in a variety of activities that help in generating fresh previous knowledge and activating old background information (Carrell, 1988, as cited in Pardede, 2019). In a similar fashion, Bransford (1994), as cited in Pardede (2019), observes that a lack of background knowledge about a text can cause difficulties in understanding, and he sees instructors' roles as the double: to activate previously established schemata, as well as assisting pupils with incorporating discrete "parcels" of information into an existing cognitive structure or establishing a new structure.

Should a particular text selected for reading has a different cultural background as compared to that of the reader, the reader will find it challenging to read and comprehend the material. To a greater degree, that is why Second/Foreign language pupils struggle to comprehend in a second or foreign language given materials that incorporate cultural beliefs of a target culture, according to McDonough (1995). As a result, in order for pupils to understand the information, the instructor must employ materials that are designed to meet the needs, tastes, individual peculiarities, and traditions of the pupils. That necessitates the activation of existing schemata as well as the assistance in the formation of new schemata. For this reason, narrative texts that have links with leaners' background knowledge and enhance their interests were selected for the study.

In addition, there are three stages in which existing knowledge can be activated and new schemata can be built when reading. Pre-reading, reading, and post-reading are the three stages (Lencioni, 2013). The pre-reading stage's purpose is for activation of existing cognitive structures, establish new cognitive structures, and inform the instructors about whatever the pupils know (Pardede, 2019). To have pupils to analyse and discuss whatever knowledge they possess about a material, an instructor could utilize strategies like predicting, mapping and harmonized reading (Pardede, 2019). The teacher directs and oversees the reader's interaction with the content throughout the during-reading stage. The facilitators assist pupils in taking notes. This ensures that pupils learn new language, crucial facts, and details, as well as summarize material and record their thoughts and opinions. The teacher uses the post-reading stage to assess the pupils. It creates easy pace for evaluating

pupils' interpretative skills while remembering that accuracy is subjective and that readers should be respected as long as the writer's objectives are met. A number of questions might be viewed in many different of ways as part of the post reading exercises (Pardede, 2019).

The schema theory was a foundation to Hamid's (2018) study and he succeeded in using phonic method in enhancing the reading abilities of learner in Ghana's Bolgatanga Municipality. Similarly, Ntim (2017) did his study in Ghana with the purpose of determining whether text acquaintance could anticipate automation of schemas, that might aim to decrease active Memory Limitations and promote reading skills. He based his research on the schema theory, claiming that successful conceptual frameworks are capable of providing some standards for remove significance from what is insignificant (Ntim, 2017). Ntim (2017) also highlighted the following points to conclude his study;

1. Reading tends to be inextricably linked to background experience;
2. Prior information forecasts schema construction;
3. Automating schema decreases cognitive burden;
4. Reducing mental load induces attentional control, boosting understanding.

The schema theory has been set to support this study because it is believed that participants have prior knowledge and experiences that they bring to class or take with them when reading materials. Pupils are not empty minded; they have active minds that are filled with a lot of experiences that can help them to make inferences about texts and comprehend the texts as Hamid (2018) points out that the learner has previous understanding of events and occurrences in

his/her surroundings, that he/she uses to construct structures that he/she then applies to every new experience. As a result, it becomes clear that the greater a learner's background knowledge, the more experience he or she will have in storing and using material. Consequently, following the schema theory will cater for the unfamiliar language and a lack of pre-reading exercises engaging the pupils' background knowledge (Firmanto, 2005; Kweldju, 1996) as causes of pupils' inability to comprehend texts.

Cognitive Theories on Graphic Organizers

According to cognitive learning theory, pupils play an important part during learning. They all bring their unique set of skills, knowledge, memories, and information from previous interactions. When trying something new, individuals process and construct their own comprehension based on their prior experiences and expertise. Always, the cognitive approach describes how and why the mind executes the complicated process of learning. Elaborations, short term memory, effective utilisation of pictures, and periodic encounters are central to cognitivism (Norris, 2017). According to Norris (2017), there are a variety of teaching approaches that are consistent with cognitive learning theory concepts. Cues, questions, advanced organizers, summarizing, and taking notes are some of these tactics. These can be used by educators to assist pupils in achieving their goals.

Graphic organizers may be traced all the way back to cognitive learning theories. By concentrating on mental processes, cognitive learning theories seek to explain how humans learn. Cognitive theorists believe that mental processes have a logical, predictable framework. Graphic organizers boost the efficacy of these processes as well as memory retention and retrieval when they are utilized

during the learning process. It appears that the use of graphic organizers is supported by all theories that are propounded on the basis of the idea of the cognitivists. The Information Process Theory (by George Miller, 1962), the Subsumption Theory (by Ausubel, 1963), the Cognitive-Load Theory (by Swellller, 1998), and the Schema Theory (by Andderson, 1977) set basis for the use of graphic organisers.

George Miller (1962) proposed the Material Process Theory, which proposed that chunking information helps pupils learn more effectively. They can store information in the long-term memory if they can chunk information correctly and consistently in the short-term memory (Hall & Strangman, 2002). According to the Information Processing Theory, instructors should assist pupils by breaking down content into reasonable segments and teaching how and when to organize the information by themselves and mediating instructions by linking current information to pupils' local beliefs and assisting pupils in learning self-mediation techniques (Hatague & Nabua, 2019). Graphic organizers make it easier to digest information, analyze one's learning, and connect new information to previous knowledge.

Furthermore, learning happens when new information is linked to pertinent concepts previously existent in the present cognitive framework, according to Ausubel's (1963) Subsumption Theory. Ausubel (1960) as cited in maintains that the usage of visual organizers, according to the hypothesis, improves pupils' acquisition and retaining of new but important materials. Graphic organisers can support pupils throughout this process by developing a structure for integrating existing information to fresh content. As a result, the

organiser's goal is to activate pupils' previous knowledge and integrate new content to already acquired knowledge (Ausubel, 1960).

In his Schema Theory, Anderson (1977) contends that memories are composed of networks of schemata. Schema is a knowledge framework that a learner creates based on prior information. Schema theory, like the Subsumption Theory, states that human minds comprise cognitive knowledge structures (previous information) that incorporate and adapt fresh information to promote retention of information (Manoli & Papadopoulou, 2012). The student can use graphic organizers to insert material into his existing schema.

Moreover, according to Sweller (1998), the "working memory can only handle a limited quantity of information at a time, and if its capacity is surpassed, the knowledge is likely to be lost" (Bazo, 2019, p.5). That is, Graphic organiser can help you learn more by reducing cognitive load and freeing up working memory.

From the four theories, it can be realised that for pupils to learn well, information must be logically presented to them by chunking; they must be made to be able to mediate their own learning; their existing knowledge much be linked to new information and there must be reduction in information to be taken into the memory at a time. Graphic Organizers ensure all these assumptions. Graphic organizers assist pupils in finding and organizing relationships, depicting structural patterns relevant to stories, locating information and key vocabulary in a book, and summarizing main concepts. They also assist pupils in problem solving and memory and comprehension development (Krasnic, 2011). KWL Charts, Story Maps and Four-Corner

Vocabulary Charts are graphic organizers that activate pupils' schemata and enhance their comprehension.

During the pre-reading activities, pupils' prior knowledge is activated and this can be effectively done by the use of the "K" column of the KWL orgniser which satisfies assumptions of Subsumption and Schema Theorists. Pupils' prior knowledge is recorded there after the teacher has brainstormed them on the topic to be read or discussed. In addition, Pupils who struggle with reading on a regular basis, according to Bruce et al. (2009), require explicit teaching to help them create new concepts. As a result, using vocabulary terms to activate pupils' past knowledge helps them connect their previous experiences with new concepts (Guthrie & Wigfield, 2000 cited in Bruce et al., 2009). To activate or build pupils' vocabulary knowledge using the Four-Corners Vocabulary Chart, the pupils must first scan the text or passage given and identify the words or phrases they do not understand. According to Khatib and Faruji (2012), graphic organizers have a good effect on pupils' vocabulary development.

Besides, the use of KWL organiser helps pupils to assess their own learning before, during and after learning. It serves as a tool that the learner uses to set objectives for his or herself and thus mediate his or her own learning. Also, story mapping, according to Sorrell (1990) as cited in Tamsil et al. (2020) is purposed "to help pupils construct the story about the elements of the story in their minds without using the given visual material as story map after a certain time and to improve thinking maps that provide text comprehension" (p. 2). The use of Story Map helps reduce the amount of information a learner reads. Pupils are taught to identify characters, setting, problems and resolutions in a narrative

text. Doing this helps reduce information overload as expected by the Cognitive Load Theorists.

Also, coincidentally, text comprehension entails the activation of pupils' prior knowledge in order to assist them retain information in order to access a text (Albufalasa, 2019). Visual organisers, according to Guastello, Beasley and Sinatra (2000), enable pupils to connect fresh information to past knowledge and aid pupils to create the schemata they need to understand the new concept. If schema is active, it can offer a context to which innovative information can be related, as well as aid learning and comprehension (Bazo, 2019).

An experimental investigation on the effects of Visual Organisers on pupils' reading skills was undertaken by Sam and Rajan (2013). In highlighting key ideas, supporting information, and word mastery, the treatment group surpassed the comparison group. The cognitive theory served as the foundation for the study. Later, Albufalasa (2019) investigated the value of implementing graphic organisers to boost English pupils' comprehension skills and enthusiasm during reading narratives, based on cognitive theory. The results demonstrated that when English language pupils employed organisers to understand short stories, their performance was much greater than when they used linear pattern story grammar (SG). He also mentioned that the participants' motivation to study and learn English literature had improved.

Consequently, since graphic organizers are good tools aid pupils in chunking information, reviewing their schema (previous knowledge) and reducing information to be learned and since graphic organizers fulfill the assumptions of the cognitivist's theories of learning were deemed appropriate to support this study. This is because by use of graphic organisers, before

reading pupils' schema (previous knowledge) about the content can be reviewed and developed to get them ready for the lesson. During reading, also, pupils can be guided with graphic organisers to chunk information and to record key issues in what they read. Likewise, after reading, the use of graphic organisers will be appropriate for pupils to assess themselves if they can recall and interpret what they read. The cognitivist theories give guides that ensure all these activities are effectively carried out.

Discussions on Variables

Discussion on Reading Comprehension

Courses taught in Ghanaian primary schools, such as English, Mathematics, Ghanaian languages, Integrated Science, Social Studies, History, and other subjects require reading and comprehension. It is no surprise that language skill affects pupils' success in all courses, according to Bizos, Gains, Moris, Place, and Puwani (2008), referenced in Mohammed and Amponsah (2018). If pupils have weak reading skills, it is reasonable to assume that their literacy abilities become a disaster (Botha et al., 2008). Furthermore, without capacity to read, one may be unaware of the subject being taught. We are exposed to a great deal of information while we read. After reading a text, a reader must understand the information gleaned from it. Jordan (2011) enlightens that reading competency is a mean and an end to educational achievement. According to Ahmad (2020), reading is said to be the basis for a complete development of the social skills of pupils. It is a useful method for increasing vocabularies and fluency in communication. According to Tella and Akande (2007), to read is a skill for reshaping lives and communities, and is at the center of self-education and life-long learning. Amongst the most vital

English skills for pupils to master is reading. Pupils must be able to read in order to get new knowledge and information. Reading is a complex process with several definitions at various times, in various circumstances, and from various writers or experts.

According to Harris (2006), reading can be described as the process of comprehending a written text. Similarly, Yusuf (2009) cited in Ahmad (2020) defines reading as "the interactive, multilevel, orthographic, phonological, lexical, syntactic, and semantic as well as discourse activities engaged by a person" (p. 52). Given the aforementioned definitions of reading, it is undeniable that text comprehension ought to be the end result of reading. For example, Yusuf made mention of "semantic" which is network of opinions readers use to identify the meaning of a text (Ahmadi, 2017). Likewise, Harris used "reading" to refer to "understanding" which is synonymous to "comprehension". All these key terms are geared towards one's ability to comprehend a given text just like Snow (2002) as cited in Ahmad (2020) stresses that reading comprehension is the art of retrieving and synthesizing meanings together with printed text via interaction. According to Hashemifardnia, Namaziandost, and Shafiee (2018), the essential purpose of a text's reader is to grasp the content. One part of language abilities that pupils must develop is reading comprehension. Since each instruction is inextricably linked to the act of reading, comprehension is necessary in every course (Ahmad, 2020). It can therefore be said that every learner is required to have better understanding skills.

Realizing comprehension as the key to reading, Syatriana (2011) sees reading comprehension to be the process of understanding what has been read.

In its expanded form and in line with the schema theory of reading comprehension, reading comprehension, according to Badr El Deen (2009), is the way of communicating with a text utilizing an integrative method that involves decoding language and phrases as well as making sense of the text using appropriate prior knowledge (schema). From the other perspective, reading and comprehension is a collaborative process where individuals interact with material when their prior knowledge is aroused (Ahmadi, 2017). As per Ahmadi (2017), comprehension is the process of connecting new knowledge to previously obtained information in working memory.

In addition, comprehension is an act of connecting the writer's material with the reader's previous knowledge to deliberate around and develop meaning pre, while, and post reading (Kirmizi, 2010). Reading comprehension demands a sophisticated integration of the reader's background experience and language abilities, not just understanding words, statements, and texts (Abu Nejmeh, 2011). It is no surprise that Hashemifardnia et al. (2018) consider reading comprehension to be an enthusiastic intellectual process that relies not only on comprehension skill but also on pupils' pre-existing knowledge. Comprehension involves understanding the language skills, seeing the connection between lexical items, developing ideas, acknowledging author's trying to make decision, and analysing.

Comprehension is therefore the understanding of a text. Hence, for one to be able to interpret a text and make inferences outside what is plainly mentioned, understanding must be the basis (Ntim, 2017). Comprehension is defined as a process of generating meaning from texts using a variety of previous knowledge, where Grabe and Stoller (2011) as cited in (Hartshorn,

Egbert, Evans, & Johnson, 2017) describe prior knowledge as " pupils' past knowledge is used to understand a text. This knowledge encompasses basic, cultural, and theme information. Strong background, content in the texts, and the perspective one develops in relation to the texts could all be included in an operational definition for all facilitators.

Importance of Reading Comprehension

This subheading discusses importance of comprehension in relation to the following; helps to broaden people's horizon and gives people confidence; helps pupils to succeed academically; supports development in abilities aside knowledge gains; helps one to develop serious thinking skills and makes one observant.

If a leaner wants to attain proficiency in a language, receptive skill and productive skill are necessary. Receptive skills include reading and listening (Al-jarrah & Imail, 2018), while writing and speaking are productive abilities. Pupils improve their receptive skills by acquiring language through oral or in writing materials. Pupils must decipher the content in order to fully understand the receptive information for this case (Abuzed, 2020, p.7). It is impossible to overestimate the value of reading as a language ability (Abuzed, 2020). People who read get ideas daily. This helps them to position themselves efficiently at the job place hence better performance is the end results. It is, without a doubt, the most significant means of obtaining information for educational reasons (Al-jarrah & Imail, 2018).

Furthermore, pupils' educational attainment suffers as a result of their inability to comprehend. Due to a lack of literacy comprehension, pupils confront a variety of obstacles beyond the classroom, according to Mundhe

(2015). This means that the statement made by Azure (2019) that skilled readers are more likely to succeed academically as a whole. Reading and extracting ideas from printed or written texts is a quality that we must have in order to live peacefully in a world characterized by textual goods. Reading helps to broaden people's horizon and gives people confidence in talking about meaningful issues that can bring peace and development (Kudado, 2019). Mastering reading is a primary tool for success for children cannot be underestimated. This means that knowing how to read has many benefits. As exemplified in Azure (2019),

> *For an individual to function well in today`s world, one must be able to read. Understanding directions and instructions on a medicine bottle, writing application letters for jobs, reading road signs, writing and responding to emails and several others are day-to-day activities that involve reading. Reading is also required for reading memos and reports and responding to employees. Writing of exams, tests in schools all depend on one`s ability to read. It is based on this that poor readers do not perform well in academic work (p. 43).*

One's ability to read a text may be very important but his/her inability to understand what is read is a great canker that can disrupt knowledge gain. This means that understanding what you are reading is crucial. As a result, comprehension is a requirement for academics and everyday life learning, financial autonomy, as well as public involvement (Wijekumar, Meyer & Lei, 2017). Comprehension is one way of developing the mind. Teaching pupils to read and comprehend supports their development in abilities aside knowledge gains (Fogarty et al., 2014). As such, Azure (2019) is right and his view that

reading and comprehension is key in the acquisition of knowledge must be supported. This is because everything you read and understand fills your head with bits of information, which helps in knowledge acquisition of knowledge that one may need to tackle any challenge he/she faces. This is probably why Kudoda (2019) states that "a person is limited in what he can accomplish without good reading and comprehension skills" (p. 24).

Reading comprehension helps one to develop serious thinking skills and makes one observant reader. Also, apart from enriching one's ability to communicate with others and exhibiting the appropriate emotional responses to what is read, Kudoda (2019) are of the view that acquiring good comprehension skills is very crucial because of the knowledge it increases and the vocabulary it enriches. Furthermore, the brain is a muscular organ that has to be trained, and reading is a crucial way to do so. Thus, Comprehension of written word is an approach to improve an individual's mental abilities (Kudoda, 2019).

Types of Comprehension Texts

According Gramley and Patzold (1992), directives, arguments, expositions, descriptives and narratives" are five categories of text read by pupils.

1. **Descriptive**

The positioning of people or things in space is the subject of descriptive texts. What is on the right or left, in the background or forefront, is discussed or provided background information for in the texts. It barely matters if a description is much more precisely factual or more imaginative (Mahdi, 2018). In description, situation or positional verb, and also relevant adverbial

utterances of place, are used. In just about all cases, flawless and advancing patterns offer background knowledge (Gramley & Patzold, 1992).

2. Directive/Instructive

A directive text, often known as an instructive text, is one that is concerned with a future activity. Imperatives or forms that replace them, such as courteous inquiries or suggestive remarks, are essential in such compositions. Despite their simplicity, stage directions are normative claims that have the force of commands. In assembly and operation instructions, imperative sequences are used. Each of the previously described types is centered on distinct events and objects (Gramley & Patzold, 1992).

1. Expository

The purpose of an expository writing is to identify and characterize phenomena. As a result, they include definitions, information, analyses, and some other sorts of essays, among other kinds of literature. They can sometimes be open to interpretation, once again. They can sometimes be analytical, like definitions, where they begin with a notion and then narrow it down into its essential elements (Mahdi, 2018). Expository language, on the other hand, can go in the other, synthetic direction, recalling qualities and closing with a suitable thought or conclusion, as in summaries. Identifying statements with state verbs, epistemic modals, or verbs denoting distinctive actions or traits are common syntactic structures that can be enlarged appropriately when producing explanatory writings (Gramley & Patzold, 1992).

2. Argumentative

In an argumentative writing, the audience's preconceptions should be questioned, the notion goes. As a consequence, an author can begin by rejecting

a claim which attaches a distinguishing quality or action to everything (Mahdi, 2018). Even when a scientific publication conveys constructive provision for a supposition, it practically constantly includes an understood rebuttal of prior ideas (Mahdi, 2018). Advertising text, which is frequently stylistically incompatible with academic text, attempts to persuade its readers, at least implicitly, that one product is preferable than another (Gramley & Patzold, 1992).

3. Narrative

According to Knaap and Watkins (2005), a narrative is any text aims at amusing, entertaining, or interacting in various ways with actual or imagined experience. The plot of a narrative book is inspired by true events. Whether a tale is fictional or non-fictional makes no difference. As a result, they can be fictional or non-fictional at the same time. The way events are sequenced is unique, with dynamic verbs in their most basic structure (Gramley & Patzold, 1992). The primary goal of narrative is to convey a tale, but the specific goal varies depending on the genre. For example, Mahdi (2018) is of the idea that a mythology is often meant to interpret a natural phenomenon, whilst a legendary is meant to pass down traditional norms or values.

According to Mahdi (2018), each sort of text has its own set of traits and properties. Recognizing these different sorts of text provides a variety of benefits. It helps the reader grasp the text's goal, for example, and makes it easier for the reader to find the information he or she seeks. Each type of literature is commonly used with varied methods in various instructional reading tasks. Narrative texts were required for this investigation.

Orientation, complication and resolution make the structure of a narrative text (Knapp, 2005 in Bukit, Sibarani & Rika, 2018). Orientation introduces characters, as well as setting and gives background information for understanding the narrative. Complication sets in motion a series of circumstances that affect what unfolds inside the narrative and how it ends. The characters in the narrative straighten out the difficulty at the stage of resolution.

According to Knapp and Watkins (2005), explaining the aim of a genre text, its structure, and grammar can help pupils grasp the languages employed in the book. The goal of narrative writing is to entertain and amuse readers or listeners, as well as to deal with real or imagined experiences in various ways.

There are exercises to teach narrative text (Anderson, 1997). According to him, there are five main parts to narratives. They are orientation, complications, plots, resolution and coda. Orientation is where the instructor informs the pupils about the characters in the novel, as well as setting and what is unfolding. A complication occurs when a learner mentions anything which sets off a cascade of difficulties. Several of the characters could be affected by these occurrences. The instructor describes how well the characters relate to the compilation in a series of events. It involves both their feelings and their actions. The events can be told chronologically (in the order they occur) or through flashbacks. The teacher's point of view is presented to the pupils. The coda is fixed or the issue is resolved in resolution.

Discussion on Graphic Organizers

Graphic organisers are beneficial during teaching and learning of language and studies on the effect of organisers in developing pupils' fundamental linguistic abilities are being done. According to Boykin (2015), graphic organizers help pupils of various educational levels and skill levels enhance their thinking, comprehension, and learning skills. According to Rohani and Abdul (2017), originally known as "advance organizers," Graphic Organizer was first created by Richard Barron in 1969. According to Horas and Damayanty (2019), a visual Organiser is a "visual representation of information in the text" that helps to gather and sort information (Parker, 2007; McKnight, 2013). Also, as quoted from Ellis and Howard (2005, p. 1), Graphic Organizers are,

> *"Visual devices that depict information in a variety of ways. Most commonly, they employ lines, circles, and boxes, to form images which depict four common ways information is typically organized: hierarchic, cause/effect, compare/contrast, and cyclic or linear sequences. These images serve as visual cues designed to facilitate communication and/or understanding of information by showing how essential information about a topic is organize"* (p.69).

In the context of learning, Horas and Damayanty (2019) see Graphic Organizers to be visual frames used for organizing key features of information into a reasonable outline by means of markers. Similarly, according to Pang (2013), instructors have commonly employed graphic organisers to support

pupils in organizing and summarizing information, classifying information, and analyzing and comparing the materials pupils read. In this study, Visual Organisers (KWL Chart, Story Map and Four-Corner Vocabulary Chart) are used to assist pupils to comprehend narrative texts and their effects are reported.

Richard Barron was first to introduce graphic organisers (advance organisers), although they have strong roots in Ausubel's theory (Manoli & Papadopoulou, 2012). In this Ausubel's (1960) cognitive theory of meaningful verbal learning, using Graphic Organisers helps pupils learn and remember new yet important concepts. Pupils can use visuals to help them understand whatever they read.

According to Jiang and Grabe (2007), Organisers are diagrams that show how content in texts are organized. In addition, according to Parker (2007), Graphic Organisers are pictorial illustrations which assist pupils to gather and sort information. Also, from the view of McKnight (2010), "Graphic Organizers are important and effective pedagogical tools for organizing content and ideas and facilitating pupils' comprehension of newly acquired information" (p.1). According to McKnight (2010), who believe that graphic organisers aid in understanding of the relationship flanked by truths, information, and terminology, use of Graphic Organisers has become a crucial tool for reading, understanding, and learning a new language. This means that Graphic Organizers enable pupils to find patterns and connections among the information presented, as well as assisting facilitators in determining how pupils think.

As per Sam and Rajan (2013), employing Graphic Organisers is a method of organising significant components of a text into a pattern employing

labeling. Graphic organizers are representations, pictures or models used for processing textual information (Sam and Rajan, 2013). Furthermore, Ayiz (2018) sees Graphic Organisers are a kind of visuals that use essential vocabulary terms to engage a learner's previous knowledge and displays the organizational structure of a reading lesson. Graphic organizers may have special names like mind map, semantic web, concept map, but nevertheless, a graphic organizer is a way of visualizing information. Graphic Organizers are schema activating tools that assist pupils remember information and access a text by triggering past knowledge (Albufalasa, 2019). According to Parker (2007) as claimed by Germinton (2017), for pupils to make connections that will lead them to integrate fresh material into their prior knowledge, Graphic Organisers work by helping pupils to connect pieces of isolated information.

Uses of Graphic Organizers

Graphic organisers make the text increasingly understandable, allowing higher level topics to be treated, and allowing pupils to be more critical thinkers (Germinton, 2017). As a result, Graphic Organizers are extremely useful and necessary tools. This is because Graphic Organizers give facilitators the tools, they need to assist pupils by improving their reading abilities (Sam & Rajan, 2013). Graphic organizers, according to Liliana (2009), help to facilitate understanding when a massive quantity of information must be processed in a limited time period. Organisers also help people solve problems, make decisions, and take action by clarifying their thoughts through relationships and organizing, as well as developing memory and comprehension (Krasnic, 2011). Furthermore, the use of graphics to construct meaning would result in the

establishment of a comprehensive knowledge which language alone may not express. (Lumontad, Argate, & Aparece, 2020).

In reading comprehension, they help pupils to facilitate the organization of information for deeper comprehension, the generation of meanings for challenging keywords by integrating with background experience, and the recognition of conceptual and perceptive discrepancies when reading a text. This is verified in Parker (2007) who states that "organizers record important pieces of information that pupils can connect with previous information and build upon for future information" (p. 5). Pupils' capacity to comprehend and interpret the meaning of a book is improved by using graphical organisers which aim at thinking critically and thinking creatively. Pupils can use graphic organizers to connect existing information to new learning, resulting in a deeper level of understanding (Germinton, 2017).

Dexter et al. (2011) in Alenazi (2018) realised that Graphic Organizers are great aids for learning vocabulary and comprehending dense texts. Also, according to Kans (2017), Graphic organisers greatly assist the reduction of information overload by allowing information and knowledge to be gathered in one location. Furthermore, organisers boost creativity by allowing readers to think more freely as well as enable them process information completely. Graphic organisers are effective instructional guides and materials for arranging thoughts in addition to knowledge and making new information easier to comprehend. As a result, a lot of studies have been undertaken on the effect of graphic organizers on the pupils' basic reading skills.

In the case of this research, it was assumed that Graphic Organisers will provide positive influence on pupils' ability to read and understand what they

read. Thus, it was expected that K.W.L Chart would improve pupils' ability to remember key issues in narrative texts. Further, it was envisaged that the use of Four-Corner Vocabulary Chart would have positive effect on pupils' ability to understand and use words as part of their vocabulary aside the assumption that Story Map would enhance the pupils' ability to identify literary elements in a narrative text. This assumption was derived based on how effective the reading tools have been on most pupils in other settings or geographical areas.

When and How to Use Graphic Organizers

Before, during, then after teaching, visual organisers are utilized as assistance to reading comprehension (Sam & Rajan, 2013). Graphic organizers are used by facilitators before instruction to determine the pupils' knowledge level or prior knowledge in relation to the material. That is, they can be used to monitor ongoing understanding while reading. It moreover allows users to construct charts some of which are specifically matched to suit learning preferences. Organisers can be used for summative assignment after pupils have finished reading the book to test understanding. As a consequence, organisers assist pupils with summarising their understanding of the material. Organisers are useful whenever a pupil has the ability to relate existing experience to whatever he or she has learnt and discover relationships among topics (Sam & Rajan, 2013).

Boxes and arrows represent transitions from one term to another, one sentence toward the next, and a paragraph toward the next (Ayiz & Warsono, 2018). A teacher can decide to allow pupils fill boxes individually or in groups. If a teacher wants to use graphic organizers, Bouchard (2005) gives the steps below.

1. Partition the participants into teams and assign for every team an article that demonstrates text structures being explored;
2. Perhaps every team is capable of identifying patterns and signal words, including "however, in contrast, or once upon a time" and clarifying connections between concepts.
3. After all of the patterns have been explained, each team must be given an essay that symbolizes a distinct structure. The class then hears the results of the teams' analyses (Ayiz, 2018).

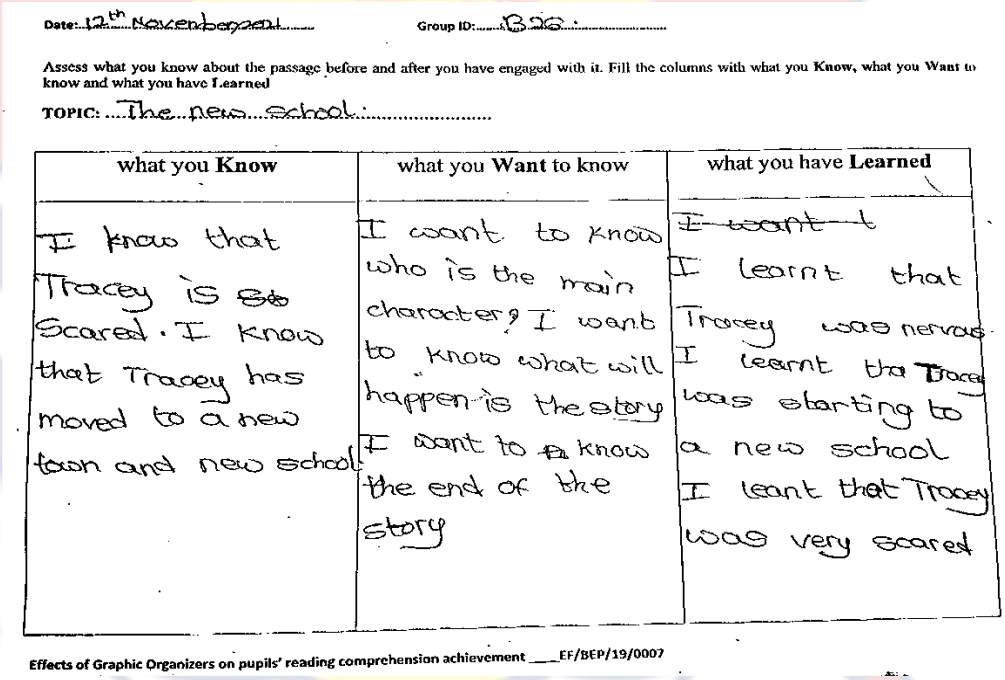
Previous studies by Jiang (2012), Bavizade, Gorjian, and Khoshakhlagh (2015), Merrifield (2017), and Germinton (2017) have demonstrated that among reading techniques, graphic organisers of many varieties are used to dramatically improve pupils' understanding of texts. The “Know-Want to know-Learned (K-W-L) Charts, four-corner vocabulary chart, Story Map” which have been chosen for this study are some of the many graphic organizers available. Kans (2017) also conducted a meta-analysis and discovered that meaning maps, knowledge maps, computer-based graphic organizers, concept maps, KWL orgainser, besides mind maps are significantly productive than old-style teaching techniques in relation to academic accomplishment. Despite the fact that there are many various Graphic Organizers, the study will employ the Know, Want to know and Learned (KWL) organiser, Four-Corner Vocabulary Chart, and Story Map.

Know-Want to know-Learned (KWL) Chart

The Know, Want to know and Learned (KWL) organiser was developed by Donna M. Ogle (1986). According to Ogle (1986) as cited in Sridharan and Nur Ehsan (2020), "K-W-L is a three-stage methodology that builds up pupils' autonomous ability in comprehending what they read" (p. 48). It is no surprise that Sridharan and Nur Ehsan (2020) believe that the primary goal of using K-W-L is to actively engage pupils with the text. The K-W-L Chart is organiser that is intended to assist pupils in improving their understanding of texts. The "K-W-L" is abbreviation that shortens "Know, Want, Learned." It is a very effective tool that can be used from the beginning of a lesson to the end of the lesson. Facilitators activate pupils' prior knowledge using the K-W-L Chart, then pupils collaborate in a conversation, whether in a whole class or small group, to define objectives and agree on whatever the team wants to acquire, then finally they have discussions about whatever they have learnt after reading (Ria & Ridha, 2017; Sridharan & Nur Ehsan, 2020). As a result, a comprehension task is classified into three activities: pre-reading activities, during reading activities, and post-reading activities.

Pupils' prior knowledge is triggered during pre-reading exercises, which can be done successfully using the **"K"** (Know) column of the K-W-L chart. Pupils' prior knowledge is recorded there after the teacher has brainstormed them on the topic to be read or discussed. Before beginning the actual reading, pupils brainstorm what they want to know, or the lesson objectives are communicated to them, or their predictions about the text are recorded at "**W**" (Want to know) section of KWL Chart, and then the real reading begins. The new knowledge that the pupils have learned or contributed to their schema

during the post-reading activities is indicated in the "**L**" (Learned) section of the KWL diagram. This means Peregoy and Boyle (2001) as cited by Ria and Ridha (2017), were correct when they stated that the KWL organiser "is used to activate pupils' background knowledge, assist pupils in setting reading purposes, and help pupils monitor reading comprehension by using graphic organizer" (p. 101). The K-W-L Chart is depicted in the graphic organizer below.



Date: 12th November 2021 Group ID: B26

Assess what you know about the passage before and after you have engaged with it. Fill the columns with what you **Know**, what you **Want** to know and what you have **Learned**

TOPIC: The new school

what you **Know**	what you **Want** to know	what you have **Learned**
I know that Tracey is so Scared. I know that Tracey has moved to a new town and new school	I want to know who is the main character? I want to know what will happen is the story I want to know the end of the story	~~I want t~~ I learnt that Tracey was nervas I learnt tha Tracy was starting to a new school I leant that Tracy was very scared

Effects of Graphic Organizers on pupils' reading comprehension achievement ___EF/BEP/19/0007

Figure 1:The K-W-L Chart: Source: Field Data (2022)

The Steps in Using the K.W.L Graphic Organizer

According to Ria and Ridha (2017) the steps of K.W.L are as follow,

1. **K (Know):** Pupils come up with a list of all they understand about the topic of the lesson. Construct a K.W.L structure on the board for the youngsters. The KWL procedure must be reinforced with pupils. Pupils must put down anything they already have and also what they wish to understand prior to reading the texts. Having followed the reading, the pupils would use what they have learned to fill in gaps on the charts. Next, as whole-groups or

small-groups, let pupils summarize their prior understanding of the topic. Write or let pupils write every notion on the chart. Then, as pupils gain more knowledge, invite them to seek clarification they may need.

2. **W (Want to know):** Pupils express their interest in learning more about the subject. Pupils should note what they discover as they decode the texts. Fresh knowledge that has links with the "What I want to know" interrogations should be highlighted (Ria & Ridha, 2017).
3. **L (Learned):** Pupils make a list of what they have learned once they have done reading or studying a topic. Pupils should tell what question has been addressed as well as those that have not been addressed by looking at the "W" section. So, they will go through the "K" section again to make sure they did not make mistakes (Ria & Ridha, 2017).

The Know-Want to know-Learned Chart is used to guide pupils to assess their own learning as they read narrative texts as long as this research is concerned. First, the learner has to writes what he or she knows (at the **Know** column) about the text using clues from images, title and keywords in the narrative text. Second, the learner writes what he or she wants to know (at the Want to Know) column as he or she reads the narrative texts. This is mostly about the plot of the narrative text. These set as objectives for the learner. Last, the learner writes what he or she has learned (at the Learned column) from the narrative text. At this stage, the learner compares what he guessed or aimed at to the new knowledge he or she has gained. This helps the learner to appreciate and assess his or her own learning.

Four-Corner Vocabulary Chart

Vocabulary knowledge is an important aspect in ensuring pupils have comprehended read. Insufficient vocabulary of a learner may impede his or her ability to read and comprehend. As a result, Thompson (1999) as referenced in Bruce et al. (2009) opines that increasing a learner's vocabulary knowledge improves his or her capacity to grasp a wide range of texts as well as raises his or her vocabulary familiarity. This is most likely why Manyak and Bauer (2009) claim that vocabulary is crucial, and that a learner's poor understanding of vocabulary in texts and questions has a detrimental effect on his or her academic performance.

Furthermore, McGee and Schickedanz (2007) suggest that simply reading books is not enough for hurrying pupils' comprehension. Likewise, to Rupley and Nichols (2005) as cited in Abbott, Dornbush, Giddings, and Thomas (2012), "Not having access to the meanings of words limits the readers' ability to make connections with their existing background knowledge, inhibits their capacity to make coherent inferences, and affects their ability to reason thoughtfully about the text" (p. 41). As a result, it is very essential for a learner to be helped in development of vocabulary.

Pupils' vocabulary knowledge is assessed using the Four-Corner Vocabulary Chart. It is a Visual Organiser which supports pupils to learn new words as well as antonyms and synonyms. As a result, Echevarria, Vogt and Short (2013) as cited in Smith, Sanchez, Betty and Davis (2016) state that "the use of Four Corners Vocabulary Charts (FCVCs) is a powerful strategy to help English pupils (ELs) master academic vocabulary" (p. 70). According to Bruce et al. (2009), who adapted McKenna (2004)'s approach, it is critical to activate

a reader's prior knowledge before reading in order to pique the reader's attention and boost comprehension of the topic or concept. Furthermore, Bruce et al. (2009) state that pupils who struggle with reading on a regular basis require explicit teaching in order to develop new concepts. As a result, using vocabulary terms to activate pupils' past knowledge helps them connect their previous experiences with new concepts (Guthrie & Wigfield, 2000 cited in Bruce et al., 2009).

To activate or build pupils' vocabulary knowledge using the Four-Corners Vocabulary Chart, the pupils must first scan the text or passage given and identify the words or phrases they do not understand. Secondly, they create the Four-Corners Vocabulary Chart, which includes writing the word in the center, writing the meaning, using the word sentences formation, finding an alternative word or antonym, and drawing images that portray the word, as seen in figure 2.

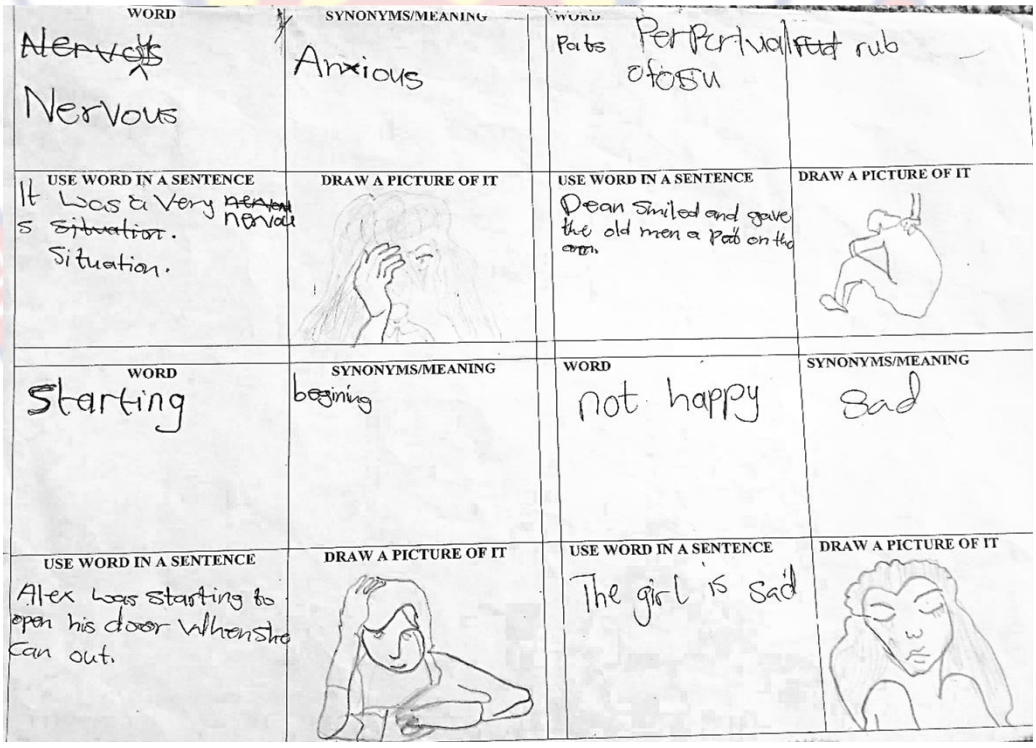


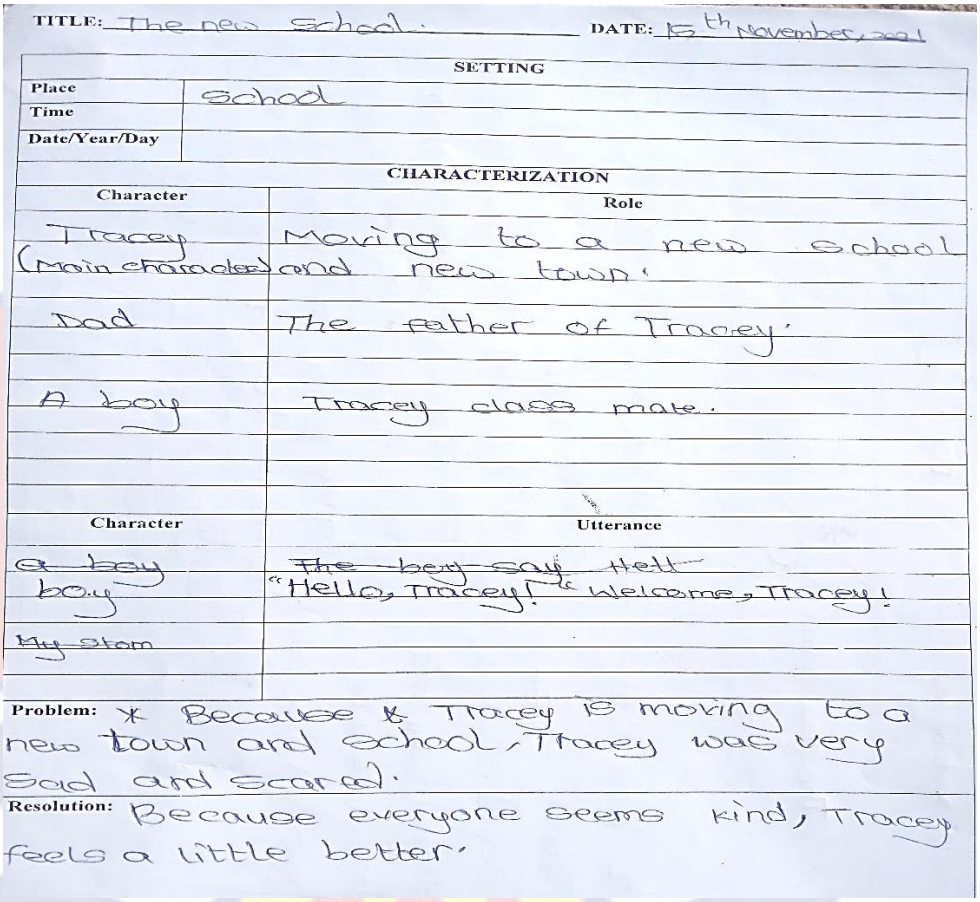
Figure 2: Four-Corners Vocabulary Chart, Source: Field Data (2022)

This will ensure that pupils not only memorize word definitions but also construct conceptual representations of words in a variety of contexts (Nichols & Rupley, 2004 cited in Bruce et al., 2009).

In this study, the Four-Corner Vocabulary Chart is used at the before reading a text. The learner is given the Chart and the text and is allowed a little time to go through the text and identify the words that appear to be difficult to him or her. Following that, the pupil is encouraged to determine the definition of the word contextually, have used word in utterances, then, if feasible, make an image of the words.

Story Map

According to Stetter and Hughes (2010), Story Maps are Graphic Organizers that readers can use to help them identify, organize, and analyze aspects of a story passage. Also, according to Tamsil et al. (2020), "Story Mapping is a strategy that uses a graphic organizer to help pupils learn the elements of a book or story by identifying the characters, plot, setting, problem and solution of the story" (p. 2). Story Mapping, in this study was done during reading. Pupils must read carefully in order to understand the intricacies. The context, characters, episodic actions, inner responses, strategies, acts, conflicts, and answers of a text can all be identified using a story map (Stein & Glenn, 1979 in Narkon & Wells, 2013). The illustration below displays a story map template with prompts and additional boxes for pupils to fill in while reading. The parts of this story map include character(s), place, main events, struggles, and the conclusion of the narrative, as borrowed from Mathis et al. (1997) quoted in Narkon and Wells (2013).



TITLE: The new school. DATE: 15th November, 2021

SETTING	
Place	School
Time	
Date/Year/Day	

CHARACTERIZATION	
Character	Role
Tracey (Main character)	Moving to a new school and new town.
Dad	The father of Tracey.
A boy	Tracey class mate.
Character	Utterance
~~a boy~~ boy	~~The boy say Hell~~ "Hello, Tracey!" "Welcome, Tracey!
~~My Mom~~	

Problem: * Because * Tracey is moving to a new town and school, Tracey was very sad and scared.

Resolution: Because everyone seems kind, Tracey feels a little better.

Figure 3: Story Map, Source: Field Data (2022)

From their idea, Stetter and Hughes (2010) make it clear that story map offers the needed support which helps pupils to be able to recall the content of a story of a passage. Tale Map is used to develop schema, according to Sorrel (1990) referenced in Duman (2006), and it entails teaching readers linkages between aspects of a story. In the words of Sorrell (1990) cited in Tamsil et al. (2020) story maps is used to help pupils to develop a narrative in their thoughts about the story's elements using the provided visualizations as a story map, as well as to enhance thinking structures that promote text comprehension.

Story Maps can be used before, during and safter reading lessons. However, for the purpose of this study, Story Maps will be used during reading. This is intended to enable pupils note down key elements of the passage they read. It is believed that by so doing, the pupils will be able to connect elements

in the passage for their easy comprehension of the passage. As Narkon and Wells (2013) put it, story map provides "explicit teacher prompts and cues that support pupils in identifying and locating each specific story element scaffolds their strategy use" (p. 273).

Empirical Review

This subchapter centers on the results of previously published articles or themes that are comparable to this study. This is important in the study as it provides the basis for making comparison and identifying the gap to fill in. The empirical review is structured across the hypotheses and the questions to be answered by this research.

Effect of Graphic Organisers on Pupils' Comprehension Achievement

In the words of Gallavan and Kottler (2007), using Graphic Organizers improves pupils' temporary memory and lasting attainment by allowing them to modify thoughts and recapitulate topics. This section of this study examines findings of studies that have been conducted on the effect of graphic organizers on pupils' comprehension achievement. The findings of Miranda (2011), Servati (2012), Casteleyne, Motart, and Valcke (2013), Khoiii and Shariffifar (2013) , Germinton (2017), Ayiz and Warsono (2018), Albufalasa (2019) and Lumontad, Argate, and Aparece (2020) are examined in the subsequent paragraphs.

Miranda (2011) investigated the effect of Graphic Organizers on one female with a learning disability's reading comprehension. As per outcomes of that investigation, graphic organisers are appropriate reading treatments for pupils with Intellectual Disabilities.

Servati (2012) examined how graphic organiser tasks such as webs and starting, middle, and finish diagrams increase the total qualities of academic writing, two pupils from a Sunnydale tutoring program and ten facilitators partook. The study's data was collected via questionnaires. According to the findings, implementing appropriate tactics grounded on graphic organizers and providing sufficient time for pupils can result in higher-quality skill development.

Also, Casteleyne, Motart, and Valcke (2013) examined how the use of graphic organisers affects the academic achievements and a range of variables including mental workload, appreciation of teacher-made materials, and cognitive approach of multimedia instruction. The experimental group was given graphic organizer-based lectures, whereas the control group was given audio-recorded lectures. While participants preferred lectures with visual organizers, Per the statistics, there really was no differences in mental demand, information acquisition, or self-efficacy between both groups.

Correspondingly, Khoiii and Shariffifar (2013) investigated the effects of memorization and graphic organisers for semantic mappings on the learning of Second-language vocabulary. They studied 38 basic pupils who were divided into two treatment groups, each adopting a distinct cognitive technique. That study's results indicate that both groups strengthened their vocabulary mastery, relying on a posttest result that contained multiple choice vocabulary items; nonetheless, there was no notable change between the memorization and visual organiser groups.

In addition, in an action-research study, Germinton (2017) described the effect of Graphic Organisers as a comprehension approach for

determining main idea and structure of texts. In this study, there were two implementation groups and two reference groups (Germinton, 2017). After examining the data, researchers discovered that organisers dramatically enhanced partakers' comprehension skills in the implementation groups. It was also revealed that when pupils used visual organizers to help them comprehend what they were reading, their motivation and anxiety levels improved. According to the findings, pupils were able to retain material and improve their communication abilities on a basic level by using graphic organizers.

In the same way, Ayiz and Warsono (2018) conducted an experiment using factorial design to investigate the effectiveness of Visual Organisers as well as the Goals, Ideas, Step-Projects, and Tasks (GIST) approach in increasing reading skills in children with favourable and unfavourable reading ability. The participants were from MA Sholahudd in Demak's twelfth grade. The outcomes of the research demonstrated that graphic organisers and the Goals, Ideas, Step-Projects, and Tasks technique were successful in improving reading comprehension in both good and bad readers (Ayiz & Warsono, 2018). Furthermore, there is no noticeable difference between employing graphic organizers and Goals, Ideas, Step-Projects, and Tasks strategies to increase reading comprehension in both good and bad readers (Ayiz & Warsono, 2018).

Also, Albufalasa (2019) confirmed that using graphic organizers increased EFL pupils' reading of short stories, and he stated that the study's findings can be utilized to help EFL pupils become improved readers of texts, as well as motivate them to read. This was based on his research into the effectiveness of utilizing Graphic Organisers to improve English pupils' narrative comprehension. The research was carried out at a university in

Bahrain. The participants were English majors in their first year taking their first literary course. The experiment was conducted with a single uninterrupted group of 30 pupils, both male and female.

Furthermore, Lumontad, Argate, and Aparece (2020) did a study at Asian College of Technology, conducted research to investigate the efficacy of applying concept maps (graphic organisers) in increasing pupils' level of comprehension. This investigation followed the Quasi-Experimental Procedure using basic comprehension items and concept mappings (Graphic Organisers). The forty education pupils served as the study's participants. The respondents were given reading comprehension questions and concept maps based on the three reading texts. To examine the data acquired and gathered, an appropriate statistical tool was utilized. It was established that concept mappings can help pupils enhance their understanding of the text. Pupils' analytical, structural, and creative skills gradually improved as a result of concept mapping, making them better readers. As a curriculum enhancement, the use of concept mappings (Graphic Organisers) as a core instructional and reading strategies in developing pupils' understanding of the text was recommended.

Differences in mean scores between males and females on use of Graphic Organisers in comprehension

As this study was interested in examining the difference in mean scores between males and females who used graphic organizers, it was necessary to examine empirical studies to find what other researchers found while the investigated into sex differences in the use of graphic organizers in reading comprehension. The following were arrived at.

First, in two elementary schools, a total of 87 4th and 6th grade classes were examined in Foxworthy's (1995) study. Her study comprised a pretest and a posttest to see how graphic organisers affected the mastery of key science concepts and skills. She considered sex as one of the variables. She discovered no significant differences for gender after her data analysis. This suggests that the usage of graphic organizers for comprehension was unaffected by gender.

The effects of graphic organizers and sex on pupils' academic progress were explored by Owolabi and Adaramati (2015). It was a non-equivalent pretest-posttest design experiment. Forty pupils from Lagos State's Senior Secondary School 2 (SS2) participated. The experimental groups were taught using a visual organizer, but Traditional teaching was given to the comparison class. For both the pre and post-tests, data was collected using the Word Problem Achievement Test (WPAT). The 3 null hypotheses were then examined through Analysis of Covariance and numerous comparatives, while the study questions were addressed using mean and standard deviation. There was no substantial disparity between boys and girls who were supported using Graphic Organisers, according to the findings.

Additionally, Odewumi et al. (2019) assessed the effects of sexual identity on pupils' productivity when utilizing Graphic Organiser. The research was conducted in a quasi-experimental format (pre-test, post-test design). The genders of the pupils in the sample size cohort were further categorized into two. Data was collected using the Graphic Organiser Assessment Instrument and the Graphic Organiser. The hypotheses were tested using t-test. It was

revealed that when participants used Graphic Organiser, their sex seemed to have no influence on their performances.

Odewumi et al. (2019) discovered that pupils' sexual identity had little influence on their efficiency during the use of Graphic Organisers, and it verifies that of Levasseur and Sawyer (2006). Likewise, the findings of Jones (2009), Michelle (2013), Nsofor and Momoh (2013), Alabi, et. al (2015), that pupils of all sexes did exceptionally well after employing organisers was verified. Even though the researchers saw no substantial variance in the means between males and females as far as the use of Graphic Organizers is concerned, it was still important to find gender difference because the study area of the researchers were different from this study's setting. Besides, the review of literature drew my attention on how important it is to use Analysis of Covariance as it helps to statistically control extraneous variables that affects the validity of a quasi-experimental study. Hence, aside the use of independent sample t-test, ANCOVA was also employed as tool for data analyses.

Differences between the use of Graphic Organizers and the use of conventional method reading comprehension

This section examines studies that are related to the difference between the effect graphic organizers have on pupils' reading comprehension achievement and the effect conventional method has on pupils' comprehension achievement. The subsequent paragraphs examination of the findings of other researchers.

Using the Know, Want-to-Know and Learned Graphic Organiser technique, Ria and Ridha (2017) investigated the difference in comprehension skills comparing 8th pupils from Bina Jaya Junior High School Palembang. The

sample comprised 72 pupils. A quasi-experimental approach was employed to test an experimental procedure on two classes. The treatment class was allocated to the grade 8.1 class, whereas the control group was assigned to the grade 8.2 class. To collect data, a reading comprehension test was used. After study, it was discovered that the eighth-grade pupils who were instructed with the KWL Organiser compared to those taught using the traditional method showed a substantial difference in reading comprehension.

Also, Pardede (2019) used an experimental design as well. Its goal was to see if using graphic organizers (GOs) affects pupils' reading comprehension. Sixty eleventh-grade pupils from SMA Negeri 102 Jakarta took part in the event. These pupils were separated comparison and treatment classes. Each class had thirty pupils in it. Both classes were instructed comprehension during 8 weeks using same techniques. The treatment class got instructed using GOs method, while the comparison class received standard instruction. All subjects were tested before and after instructions to collect data. The obtained data was analyzed using SPSS version 21. As per the results, the treatment class's posttest overall mean was 84.66, while the comparison class's post-test average score was 56.33. As a consequence, it was concluded that when compared to conventional reading approaches, employing Graphic Organisers does have a significant effect on enhancing reading skills of 11th pupils in SMA Negeri 102 Jakarta. From the study it can be realised that Graphic Organizers can be a useful tool for improving pupils' reading comprehension.

During the same year as Pardede, Odewumi et al. (2019) investigated the effectiveness of visual organisers on junior high school pupils' mental literacy capabilities. The research examined effect of gender on performance of

pupils taught with organiser, in addition to assessing if pupils instructed with an organiser did much better than those instructed with traditional strategies. The investigation used a quasi-experiment that included pretest, posttest, and comparison subjects' design. Two junior secondary institutions in Ile-Ife, Nigeria's Oyo State, were selected randomly and used. The gender of the pupils in the sampling class was then separated into two groups. Graphic Organizer Achievement Tests were employed to collect data. And per the results, pupils instructed using a graphical organiser showed better performance than pupils taught with conventional method. As per conclusions, instructors should use Graphic Organiser while instructing Cultural and Creative Arts to increase pupils' performance. The findings support Clark's (2007) findings that visual organizers assist pupils in understanding complex concepts, generating thoughts, and ideas.

Similarly, Lumontad, Argate, and Aparece (2020) carried out an investigation at Asian College of Technology to see how effective concept map (graphic organisers) is in improving pupils' reading comprehension skills. With comprehension questions and idea maps, the study used the Quasi-Experimental Method (graphic organizers). The forty education pupils served as the study's participants. They were categorized into two groups. The treatment class was divided into two halves, one for the treatment class and the other for the comparison class. Graphic organisers were given to the treatment class, while the comparison class received standard care. Researchers gave the two groups of responders reading comprehension questions and concept maps based on the three reading materials. To examine the data acquired and gathered, an appropriate statistical tool was utilized. Concept mapping was

found to aid pupils in improving their understanding of the text. Pupils' analytic, structural, and abilities could improve over time as a result of concept mapping, making them better readers. As a curriculum reinforcement, the use of concept mapping (graphical organisers) as one of the core reading approaches to improving pupils' understanding of the text was promoted.

Rahat, Rahman, and Ullah (2020) investigated the used graphic organisers in the teaching of comprehension. This study was quasi-experiment that use 40 pupils. The treatment class of twenty pupils were offered the GOs therapy, whereas the comparison class twenty pupils received the normal or standard manner of teaching. Pre and post tests were administrated on both classes to see how the treatment affected their reading comprehension after five weeks. The mean score of the two equivalent classes showed a significant change, as the use of Graphic Organisers had a good influence on the pupils' understanding. The findings revealed that when new knowledge is related to the pupils' 'cognitive structure,' the material is quickly acquired.

Identified Gaps for the Study

Several strongly striking discoveries emerged from an examination of published findings. This study is inspired by the need to expand the present behaviors, mindsets, and expertise of key parties above their current limits.

To begin, this study discovered a preponderance of comprehension development concerns alongside global viewpoints on the subject. Consequently, Jiang and Grabe (2007) as well as Tamsil et al. (2020) have called for second language researchers to investigate into the effectiveness of graphic organizers on comprehension abilities of pupils as it is an ongoing worry to the society. Meanwhile, while many studies on reading competency

have been undertaken in and outside of Ghana, few, if any, have focused on reading comprehension achievement. It was therefore vital to experiment on influence of Organisers on comprehension achievement of pupils in the Ghanaian setting.

Moreover, this assessment placed a greater emphasis on the usefulness of methods that use Graphic Organisers to solve problems rather than traditional methods. Although it is commendable, it is important to keep in mind that the Graphic Organizers' efficiency is only as powerful as the existing theories that underpin them, necessitating the use of an experiment. Furthermore, past research who used Graphic Organiser used one type of Graphic Organiser, according to the information examined. However, in this study attention is given to narrative text comprehension which require various abilities to comprehend. These include one's ability to identify the plot or key issues in the story, one's vocabulary ability and one's ability to identify literary elements. Since these three requirements are important to understanding narrative texts, this study focused on three Graphic Organizers; K-W-L Chart, Four-Corner Vocabulary Chart and Story Map. Even though each of them has special function to perform, all of them come together to help a learner analyse and understand a narrative text.

Similarly, research on comprehension issues has generally focused on higher-grade pupils. This problem of lower-level incapacity to understand texts among Ghanaian pupils has really been overlooked. So, even though I could have done this study in other levels of education apart from Basic four, it was realised that Basic three (B3) is a transitional class in Ghana, serving as a sandwich Lower-level Primary and the Upper-level Primary. Pupils in Basic

four (B4) just finished Lower-Primary, where native tongue (L1) was the principal instructional language, typically find it challenging to acclimatize to English as the principal means of instruction in B4 (Abudu, 2017). As evident in Abudu (2017), success is likely to be greatly connected to someone else's English language competence, especially in in a country like Ghana, so if pupils are not helped at around this premature time in creating a working basis in their reading skills, they will find it really hard to accomplish their educational objectives. Hence, this study attempted to breach the gap as far as level of education is concerned.

Fourth, the reviews show that even though gender is important variable to consider in education, most of the researchers did not show interest in finding the mean difference between males and females who are taught with Graphic Organizers to comprehend narrative texts. Hence, it was deemed important to test the mean difference between male and female Ghanaian pupils who received Graphic Organizer instructions in so as to verify or refute the few findings that reveal that gender has no effect on Graphic Organizers and the vice versa.

As a result, this research is a careful attempt to fill in the knowledge gaps across three perspectives. First, this study examines the effect of graphic organizers on pupils' reading comprehension in the context of Ghanaian Basic Schools. Next, this research attempts to back up data on the efficacy of present quasi-experimental design as well as argument of theories on the viability of Graphic Organisers in comparison to traditional techniques out of several perspectives. Lastly, this investigation sought to determine the effect of Graphic Organisers on the reading accomplishment of Ghanaian Basic Four (B4) pupils,

both males and girls. Apart from these, the research is intended to informally confirm or deny those theories which have been picked to underpin the research.

Chapter Summary

Comprehension has a significant effect on the pupils' educational excellence as well as their analytical, intellectual, and assessment skills, per the study. However, a number of studies show that no evidence on the effect of graphic organisers on the comprehension skills of Ghanaian Basic Four (B4) pupils can indeed be found locally. Meanwhile, findings of previous studies reviewed, it is obvious that a majority of research into the effects of graphic organisers on pupils' comprehension skills ability were conducted outside of the United States, and the instruments have proven to be effective in those cultures. As a result of pupils' poor academic performance in comprehension skills and a research problem in the literature on the subject, there is need to find proof of the effect of Graphic Organisers on pupils' basic comprehension ability in Ghana.

CHAPTER THREE

RESEARCH METHODS

Introduction

The research design, study areas, population, sample and sampling techniques, data collection instrument, data collection procedures, and data analysis procedure are all described in the methodology section. Ethical concerns raised throughout the research were also highlighted.

Research Approach

The study followed quantitative approach to test and validate the supporting theories about how graphic organizers affected pupils' reading comprehension through testing hypotheses. "A quantitative method is a research methodology that collects numerical data and analyzes it using statistical methods to understand a phenomenon" (Aliaga & Gunderson, 2000, p.32). A quantitative approach, according to Creswell (2012), allows the investigator to apply investigative strategies such as experimentation to collect data on pre-programmed equipment that generate statistical evidence. As a result, the positivist (realist) paradigm, which employs statistical analysis to solve practical issues, look for law-like generalizations, and pinpoint exact causal relationships, backs up the research (Kim, 2003). Hence, the study focused on facts as causality between strategies of teaching (independent variables) and achievement (dependent variables) was measured through formulation and testing of hypotheses.

Research Design

This study followed quasi-experimental design because subjects were not assigned into treatment and comparison groups randomly, intact classes were rather used. The locations of the two schools were far apart and the implementation of the intervention was restricted to during school hours by the Director of Education. Hence, it was not ethically feasible to conduct random assignment for the participants. Hence, instead of true experimental design which would need random assignment of participant, the study used quasi-experimental design. The absence of randomization of subjects into comparison groups in quasi-experimental design is what makes it different from true experimental design. In terms of pre-intervention characteristics, quasi-experimental designs find a comparison group that is as similar to the treatment group as feasible (White & Sabarwal, 2014). The control group represents what would have occurred if the intervention had not been implemented. As a consequence, any discrepancy in outcomes between the experimental and control groups may be traced back to the intervention.

The pretest-posttest nonequivalent comparison group design was used in this study. The design is made up of a treatment group and a non-equivalent untreated comparison group (Amedahe & Gyimah, 2019). The groups are non-equivalent because there is no random assignment of the subjects of the study. Both groups are administered pretest and posttest. The study used two sets of pupils of which one received treatments while the other group did not. Hence, because the study used two non-equivalent groups, the pretest and posttest non-equivalent comparison group design was chosen and followed.

Study Area

The study area is the Effutu Municipality in the Central Region of Ghana. The Effutu Municipal Assembly was established in 2007 under the Local Government Act (Act 462) and L.I.1860. The Effutu Municipal Assembly is among Ghana's 216 Administrative Districts which is one of the 20 districts that make up the Central Region. The Effutu Municipal Assembly was formed from the Awutu-Effutu Senya-District Assembly. It is trapped between the Gomoa East district on its western, northern, and eastern flanks. The southern flank is formed by the Gulf of Guinea. It has a total land area of 64 square kilometres. It is located between latitudes 5°16' and 20.18' N and longitudes 0°32' and 48.32'W in the Central Region's eastern part. The Municipality is located in the dry-equatorial climate zone, which has a five-month dry season and negligible rainfall. Rainfall fluctuates between 400 and 500 millimetres per year. Temperatures range from 22 to 28 degrees Celsius on average. The flora is similar to something like a coastal savannah grassland, which is ideal for growing vegetables or providing hydration even during dry period. The sediments of the Municipality are largely clay with high salinity, making it a perfect for salt production and the manufacturing of ceramics and rooftop tiles. Winneba is the administrative headquarters of the Municipality and is noted for its several specialised important higher education institutions (Effutu Municipal Assembly, 2018).

Figure 4: Map of Effutu Municipal

According to the 2010 Population and Housing Census (PHC), The Municipal used to have a populace of 68,597 inhabitants, including 32,795 males (48%) and 35,802 women (52%) making up 3.1 percentage of the Central Region's overall population of 2,201,863 citizens (Effutu Municipal Assembly, 2018). There are 41,882 people over the age of 18 in the city, accounting for 61.1 percent of the population, with males accounting for 19,623 (46.9%) and females accounting for 22,259 people (53.1 percent). It had 17,121 households, with a 3.6-person average household size. The urban population is 63, 969 people, or 93.3 percent of the total population, with 4,628 people living in rural areas, or 6.7 percent. In 2000, the population was 46,574, with 21,346 men (45.83 percent) and 25,508 women (54.77 percent). In 1970, the city's population was 32,315 people, and in 1984, it was 32,523 people. The Municipal grew at a rate of 3.2 percent between 2000 and 1984. With a population of 56,356 people, Winneba is perhaps the most populated concentrated settlement. Warabeba, Gyangyanadze, Gyahadze, Ateitu,

Osubonpanyin, Nsuekyir and Sankor are other Winneba neighborhoods include (Effutu Municipal Assembly, 2018).

Table 1: Demographics of the Municipality's Major Settlements

S/N	Community's Name	Gender		Total	House holds	Houses
		Male	Female			
1	Winneba	27,008	29,348	56,356	14,184	4,853
2	Sankor	3,295	3,659	6,954	1,641	672
3	Gyahadze	537	638	1,175	279	240
4	Nsukyire	477	669	1,146	293	235
5	Atietu	324	376	700	173	213
6	Gyangyanadze	323	336	659	159	117
7	Akosua Village	290	278	133	568	128
8	Warabeba	288	264	552	138	116
9	Asubonpanyin	253	234	487	121	108

Source: Ghana Statistical Service (2014) 2010 Population & Housing Census:

The Effutu Municipality, a fishing hamlet, is primarily populated by Effutus, who belong to the Guan language group of the country, however Fanti is commonly spoken. The Ewe and Gomoa are two minority communities in the Municipality. In the township, there seem to be 60 nurseries/kindergartens (24 publicly, 36 privately), 53 primary institutions (25 publicly, 28 privately), plus 34 junior high schools (20 Publicly and 14 Privately). Vocational institutions in the Municipality include; Rev. Father John Vocational Institute, S.H Amisah, Winneba Business School and National Vocational Training Institute. The Municipal Assembly has constructed three ICT centres at Don-Bosco, Abasraba

Anglican and Gyahadze JHS. All the three centres have been furnished with computers and accessories to improve teaching and learning of ICT.

Population of the Study

The targeted group of this research was 26 public primary school Basic Four (B4) pupils in the Effutu Municipality. Even though most researchers such as Rohani and Abdul (2017) and Sioringas and Nola (2019) used Grade Four pupils and Grade One pupils, the accessible population of this study comprised all the Basic Four (B4) pupils of the public primary schools in the Municipality. This is because Graphic Organisers are used efficiently throughout all sessions for pupils of all stages of education to assess not just their understanding but also to stimulate and strengthen overall cognitive skills within the context of comprehension skills (Horas & Damayanty, 2019). Aside, the researcher intended to administer the treatments on Basic Four (B4) pupils of the public primary schools so that long-term effects of the teaching methods can be realised and traced transitionally.

In the 26 public basic schools that were the target population, there are 4410 pupils. Among these pupils were 2395 (54.3%) females and 2015 (45.7%) males. Besides, there were 210 teachers among which 141 were males and 69 were females. Hence, there was teacher-pupil ratio in the Municipality as far as public primary schools are concerned was 1:23. The Table 2 summarizes the estimated population.

Table 2: Estimated Population

Sex	Number	Percentage
Male	2015	45.7
Female	2395	54.3
Total	**4410**	**100**

Source: Ghana Statistical Service (2014) 2010 Population & Housing Census:

Sample and Sampling Procedure

Even though there were 26 public primary schools in the Effutu Municipality (Effutu Municipal Assembly, 2018), only two (2) were chosen for the study. This was so because the Director of Education in the Municipality restricted the researcher to two schools. Hence, ethically, it was not feasible to extend the groups to more than two schools. This study used simple random sampling technique and purposive sampling technique. The schools were sampled using simple random sampling without replacement, or the lottery method. Since each school represents a homogeneous group of pupils, the names of the schools were written and numbers were written against each of the names of the 26 schools. Two of the schools were chosen using the lottery (simple random sampling) methods. The use of the simple random sampling made selection unbiased and also made the sample schools a representative of the of the 26 public primary schools in the Municipality and hence the finding is externally valid for generalization (Ary, Jacobs, Razavieh & Sorensen, 2006).

Afterwards, the Basic Four (B4) pupils of each of the two schools were purposively sampled and categorized into non-equivalent intact groups of. Basic 4 pupils were chosen because Basic 3 is a transitional class in Ghana that serves as a bridge between Lower and Upper Grade levels. Pupils in Basic 4 who just completed Lower Primary, where native language was the principal means of teaching, often struggle to adapt to English, the main language for instruction in Basic 4 (Abudu, 2017). As evident in Abudu (2017), academic achievement tends to be highly connected with one's English proficiency, especially in a country like Ghana that has English as lingua franca. Hence, if pupils are not aided during this beginning period in building a comprehensive grounding in

their reading skills, they will face difficulty in accomplishing their educational objectives. One school was assisted with the organisers and the other assisted with conventional method. This was made so because the investigation was meant to study the consequence of graphic organiser on pupils' comprehension and so it needed to be experimented and have the result compared with pupils who had equivalent characteristics as the experimented group before the experiment was carried out. That is, there was no random assignment of subjects but two intact groups which were non-equivalent were studied.

The findings of the pre-test were also used to categorize schools into experimental and control groups. Despite the statistically insignificant disparity in the mean marks of pupils in schools A and B, the mean score of pupils in school B was lower than that of school A, and thus school B was employed as an experimental group.

Even though there 4410 pupils in the public primary schools in the Municipality, a total number of 84 (1.91% of the total population) pupils comprising 39 (46.4%) and 45 (53.6%) females were sampled for the study. This was due to the choice of design (which allow for intact classes to be used) and the restrictions from the Director of Education in the Municipality as discussed previously. The Table 3 summarizes the sample size.

Table 3: Distribution of Subjects (Treatment and Control Groups)

Variable	Value	N	Percentage
Gender	Male	39	46.4
	Female	45	53.6
Gender in Groups:	**Treatment**		
	Male	14	35
	Female	26	65
	Control		
	Male	19	43.2
	Female	25	56.8
Group total	School B	40	47.7
	School A	44	52.3

Source: Field Data (2022)

Data Collection Instruments

Tests served as data collection instrument on pupils' reading comprehension achievement. Hence, pupils were scored by adding the marks a learner obtained on each test item. The tests were in the form of pretest and posttest. That is, "before-and-after" tests were administered to measure whether the expected changes took place in the subjects in the study. The pre-test was used at beginning of the study to establish the pupils' comprehension achievement baseline and then related to an end of the course examination to look at knowledge added. After the implementation of the strategies, a post-test was conducted so that it was used in connection with a pretest to assess the subjects' individual comprehension achievements and the effectiveness of the proposed strategies.

Pilot Study

Model research was undertaken to determine the utility and feasibility of my intervention and the methods used in the full-scale research. The pilot research was done using two schools in the Gomoa Central District since their ability level and performance in comprehension were similar after comparing their pre-test results. The researcher used simple random sampling technique to select two schools in the Gomoa Central District after which purposive sampling was used to select Basic Four pupils of each of the two schools. Ten (10) pupils were selected from each of school A and school B for the pilot study. Since the investigator could not really employ a group of pupils of different classes due to quasi-experimental design, Intact Groups were used in each school. Furthermore, intact groups are advocated for in quasi experimental designs.

The small-scale study was aimed at finding out the effect Graphic Organizers (KWL, Story Map and Four-Corner Vocabulary Chart) have on the ability of pupils to comprehend what they read. Also, it sought to find Gender differences in graphic organiser use and reading comprehension. The experiment's aim was to see if there was any evidence of:

1. The effect of graphic organisers on pupils' reading comprehension scores.
2. The effect of Graphic Organizers against the traditional technique on pupils' reading comprehension.

Before implementing graphic organisers, pre-pilot testing comprising 20 items which was based on narrative texts (titled, “Bullies”) serving as pre-test in the main study was given to each group to answer. The implementation of

the intervention was done using one week. After the implementation of the graphic organizers, a post-test was conducted. The posttest was made up of 20 items based on a narrative text (Moving to a New school).

Analysis using Shapiro Wilk showed a p-value (sig.) of .339 for the pilot-pre-test and a p-value (sig.) of .609 for the pilot-post-test. It is realised that normality was ascertained as the P-value of each of pretest and posttest is greater than 0.05 as shown in Table 4.

Table 4: Normality of Pilot (Pre and Post) Tests

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Pre-Test Scores	.948	20	.339
Post Test Scores	.963	20	.609

Source: Field Survey (2022)

Pupils' comprehension achievement was compared between groups using independent sampled t-test to verify the difference between characteristics of the two groups before the experiment was done. This was done to "maximize the validity of the comparison; these two groups had to be as similar as feasible in terms of characteristics prior to the intervention being carried out" (Hanita, Ansel & Shakman, 2017). The Sig. result of the Levene's Test for Equality of Variances was.464 which is stronger than .05 and indicates that equal variances were assumed. Therefore, the top degree of freedom (df) was used. By so doing, it was realised that the performance of the Treatment Group (Mean = 8.02, SD = 3.994) stood not statistically dissimilar from the performance of the comparison class (Mean = 10.9, SD = 4.863); t(18) = -1.357, p=.192, (two

tailed). The results show that the subjects in both groups shared similar characteristics in terms of comprehension ability.

On the contrary, after the pilot-post-test, it was realised that the performance of the experimental class (School A) (Mean = 14.40, SD = 3.339) was statistically different from the performance of the Control Group (School B) (Mean = 8.60, SD = 4.299); t(18) = 3.369, p=.003, (two tailed). This suggests that using visuals enhanced pupils' comprehension accomplishment when contrasted to using a traditional strategy for reading comprehension skill. Also, The result show no statistically significant variance between the performance of the comparison class in the pretest (Mean = 10.9, SD=4.864) and their performance in the post-test (Mean = 8.6, SD=4.299); t(9) = 1.746, p=.115, (two tailed). On the other hand, the Treatment class, had a statistical difference between their PreTest scores (Mean = 8.20, SD = 3.994) and their Post-Test scores (Mean = 14.40, SD = 3.340); t(9) = -3.899, p=.004.

Therefore, the null hypothesis, the use of graphic organisers has no substantial effect on pupils' reading comprehension, is rejected. As a result, it is established that graphic organisers (KWL, Story Map, and Four-Corner Vocabulary Chart) have a favorable substantial effect on pupils' basic comprehension achievement. Furthermore, visualisations had a favourable effect on pupils' basic comprehension accomplishment, as opposed to a reduction in School B pupils' comprehension skills accomplishment in the posttest after employing the traditional style of teaching without graphic organisers.

The pilot study also revealed through observations that some of the pupils, especially the girls found it difficult using graphic organisers. This

motivated the investigator to find out the effect gender has on the using graphic organisers during comprehension. Also, the pilot research helped in realizing the need to pay attention to effects of Story Map and Four-Corner Vocabulary Charts on elements identification and vocabulary building since according to the cognitivist's theories of learning, they are sine qua non to the comprehension of a text.

Validity and Reliability of Instrument

Nitko and Brookhart (2007) and Gall, Borg and Gall (2003) state that expert judgement improves the validity of research instruments. Nevertheless, the degrees to which a study's instrument would assess a trait reliably when administered to the same individual(s) within comparable circumstances is referred to as reliability. The comprehension items for class four pupils were modified for the research. The items were given to three basic four English Language facilitators who had 4, 5 and 3 years of teaching experiences to check if the passage (including the vocabulary and expressions used) and the individual items were at the level of basic four (B4) pupils. The facilitators endorsed the tests items.

Furthermore, I gave the study's instrument to my supervisor, a specialist in testing, who scrutinised them to guarantee that they were of high quality and free of ambiguities. Further, consistency of the two tests were conducted using the KR20 reliability coefficient after the pilot study and after the main study. It was realised that the reliability coefficients for the pre-test was 0.86 and 0.75 for both the piloting and main studies respectively. In addition, the piloted research and the principal research's post-tests yielded adequate reliability of 0.84 and 0.74, respectively. This is backed by Pallant (2011) who is of the view

that a reliability index of 0.60 or above is deemed reasonably adequate. This implies that with reliability values of 0.75 and 0.74, the tests in used for the actual study indicate that the questions appeared adequate for assessing the considered construct.

Data Collection Procedures

Ethical clearance was obtained from Institutional Review Board (IRB) (see to appendix 5) and delivered to the Head of the University of Cape Coast's Basic Education Department for an introductory letter (refer to appendix 4). The study took a duration of seven (7) weeks for the data collection, training and implementation of strategies. The pretest was conducted on Tuesday, 28th September, 2021, after which the researcher was asked to get a letter from the Municipal Director of Education. Hence, the introductory letter was dispatched to obtain approval from the Municipal Director of the Ghana Education Service in the Effutu Municipality.

In the course of waiting for the letter of approval, the researcher was allowed 12th October, 2021 and 15th October, 2021 to train and make intentions known to the research assistants. The study's aims were explained to them as part of the exercise. The researcher made sure the facilitator who taught the control group was not a user of graphic organizers.

On Monday 18th of October, 2021, the researcher received a go-ahead letter from the Municipal Director of Education (refer to appendix 3) and was immediately taken to the two schools. The randomly selected public primary schools in the municipality were formally presented the introducing letters from the GES's Municipal Directress to seek for permission to commence the implementation. Hence, the actual teaching in the experimental school (school

B) began on Tuesday, 19th October, 2021. However, in the control school, it began on Wednesday, 20th October, 2021. The implementation or classroom teaching lasted for three weeks for each school. School B had their lesson twice every week (Tuesdays and Fridays) and school A also had theirs twice every week (Wednesdays and Thursdays). An hour (60 minutes) duration was used for every lesson for both groups. The implementation ended on Friday, 5th October, 2021. Finally, the post test was conducted on Tuesday 9th November, 2021. The post-test was measured in three days by two teachers for both groups to ensure the reliability of the test scores.

Reading Materials

The study's reading materials comprised of chosen texts from Golden English, a supplementary reader produced and published by Golden Care Publications Ghana Ltd. The narrative texts in this reader were produced for Basic Four (B4) pupils. The comprehension materials chosen were based on the pupils' abilities and grade levels.

Instructional Procedure

The Figure 6 tells that two groups were involved in the study. These groups were involved the treatment class and the comparison class.

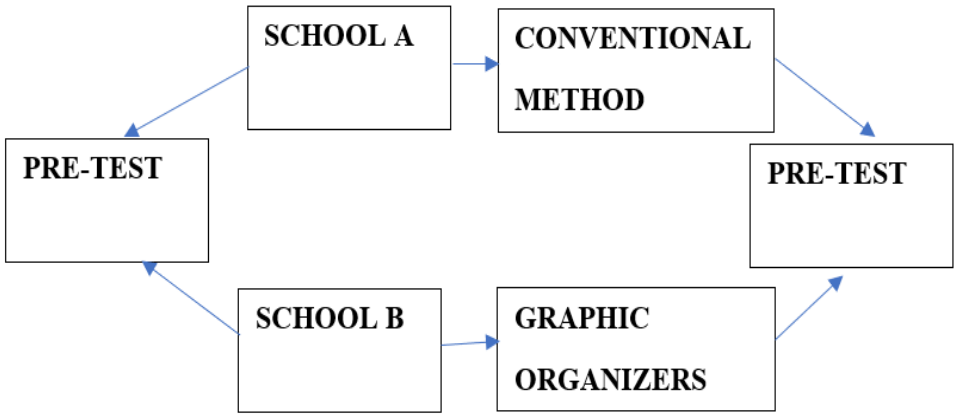


Figure 6: Concept of the Study Process

From the Figure 6, it is seen that prior to the implementation, both purposively sampled classes sat for a pretest. The pretest results revealed that the pupils had problem with comprehension as the was no statistically significant difference between mean score of pupils in School A and pupils in School B. However, it was found that the mean score of pupils in School A was higher than the mean score of pupils in School B. Hence, in order to realise the how well the use of graphic organizers improves reading comprehension, Basic Four pupils in School B were used as experimental group who used graphic organizers while Basic Four pupils in School A used conventional method. The subsequent paragraphs give detailed information about the figure 6.

Administration of Pre-Test

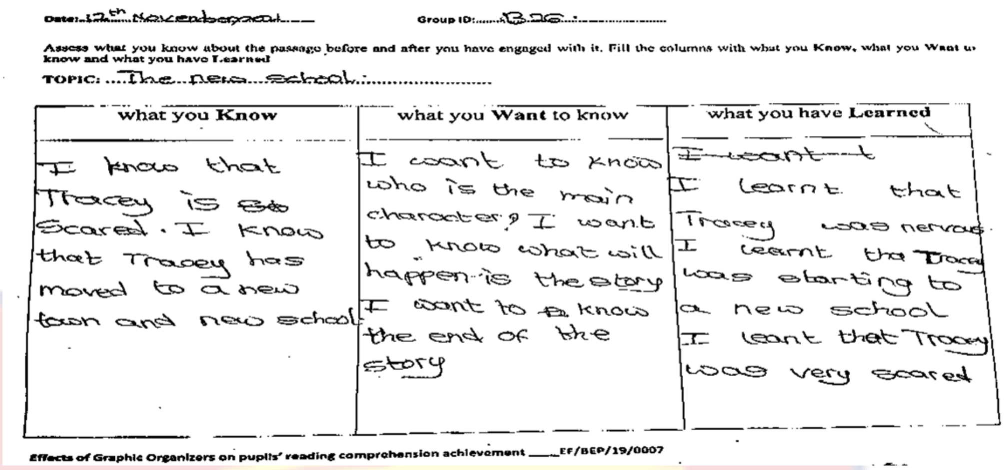
As shown in Figure 6, before the implementation of the strategy and the resources, each of the groups were pretested. Pretest was given the treatment and comparison classes to determine pupils' reading comprehension baseline. Both groups' pre-test scores were kept track of. The test was created in accordance with the study's objectives. It was made up of a passage entitled "Bullies" that was imitated by the researcher. The test had 20 questions were

made up of 6 objective items, 9 questions which allowed pupils to write facts and infer and 4 vocabulary items (find pre-test in Appendix 1). The assessment was worth a total of 20 points, with each item earning one point.

The Experimental Class

This class was made up of 40 pupils who used graphic organisers (Story Map, Four-Corner Vocabulary Chart and K-W-L Chart) as teaching and learning resources to learn reading comprehension. Pupils were divided into eight (8) mixed ability groups of fives at the start of the lesson. They were taught "What are graphic organisers and how may they help you read a text more effectively?" Pupils were taught how the various organisers were used for various activities, also. The pupils studied three different graphic organizers that were offered (KWL Chart, Story Map and Four-Corner Vocabulary Chart). These three graphic organizers were utilized at all three levels of instructions: before, during, and after reading.

Through the K-W-L Chart, facilitator activated pupils' prior knowledge then pupils collaborate in a discussion, whether whole class or small group, to set objectives agreeing on lessons' objectives. During post reading, they deliberate on information acquired. The Figure shows a sample of the K-W-L Chart used by a pupil during reading instructions.


Date: 12th November2021 Group ID: B26

Assess what you know about the passage before and after you have engaged with it. Fill the columns with what you Know, what you Want to know and what you have Learned

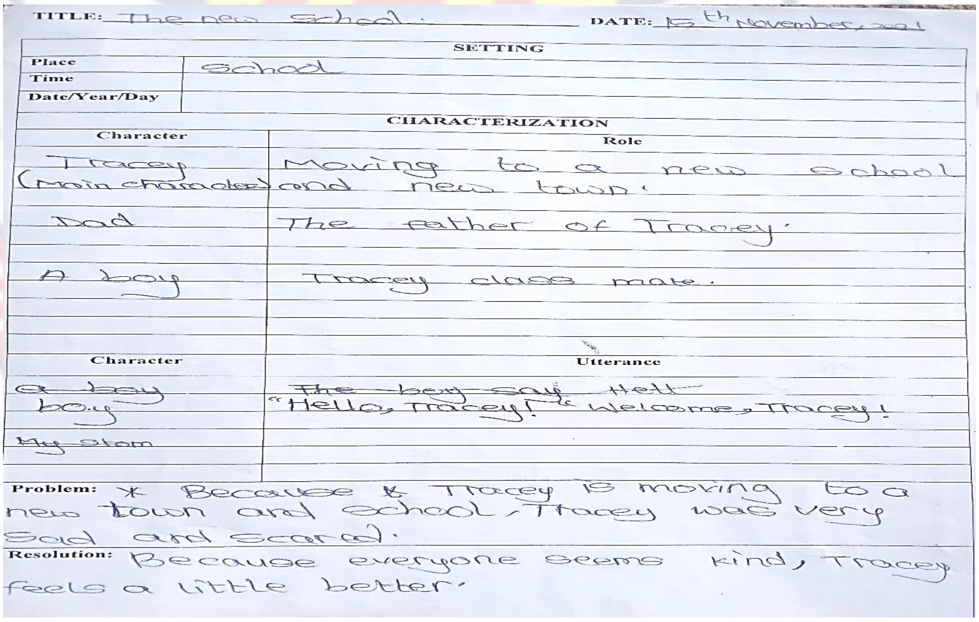
TOPIC: The new school.

what you Know	what you Want to know	what you have Learned
I know that Tracey is so scared. I know that Tracey has moved to a new town and new school	I want to know who is the main character? I want to know what will happen in the story. I want to know the end of the story	~~I want t~~ I learnt that Tracey was nervous. I learnt the Tracey was starting to a new school. I leant that Tracey was very scared

Effects of Graphic Organizers on pupils' reading comprehension achievement ___EF/BEP/19/0007

Figure 7: Sample of K-W-L Chart

In addition, Story Mapping was utilized to assist pupils in learning the aspects of narratives by recognizing a character, storyline, settings, challenge, and resolution. Pupils read carefully in order to understand the details. The Figure below displays a story map template with prompts and additional boxes for pupils filled during reading. Character(s), setting, problems, and the resolution were considered.


TITLE: The new School. DATE: 15th November, 2021

SETTING

Place	School
Time	
Date/Year/Day	

CHARACTERIZATION

Character	Role
Tracey (Main character)	Moving to a new school and new town.
Dad	The father of Tracey.
A boy	Tracey class mate.

Character	Utterance
~~a boy~~ boy	~~The boy say Hell~~ "Hello, Tracey!" "Welcome, Tracey!"
~~My stom~~	

Problem: * Because Tracey is moving to a new town and school, Tracey was very sad and scared.

Resolution: Because everyone seems kind, Tracey feels a little better.

Figure 8: Sample of story map pupils used

Furthermore, the use of Four Corners Vocabulary Charts was to help pupils master new words they came across. Pupils create the Four-Corners

Vocabulary Chart, which includes writing the word in the center, writing the meaning, using the word sentences formation, finding an alternative word or antonym, and drawing images that portray the word, as seen in figure 9.

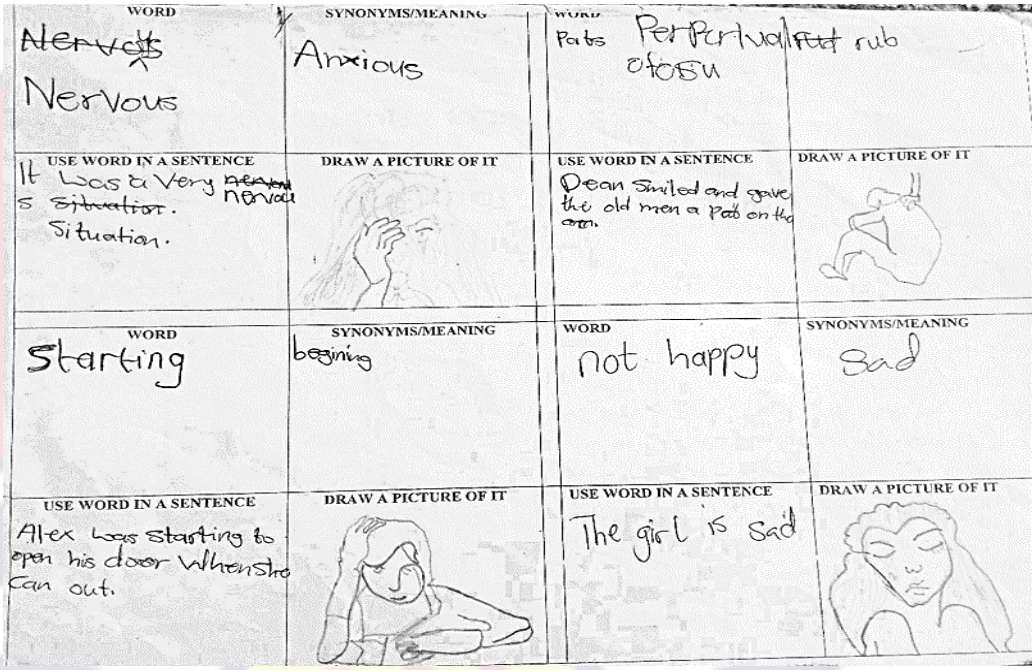


Figure 9: Four-Corner Vocabulary Chart used

Pupils were used graphic organizers at all stages of reading (pre-reading, during reading and post-reading). K-W-L Chart was used at the pre-reading stage to activate a pupil's schema and for the pupil to set his or her own objectives. The Four-Corner Vocabulary Chart also helped the pupil to find meaning of words in context of use especially before the pupil reads. The Story Map was used during the reading stage so that the pupil identifies characters and their utterances, setting, problems and resolutions. Finally, the K-W-L Chart comes in again to assess the pupil on what he or she has learned. Detailed sample of lesson is seen in appendices 3, 4,5 and 6.

The Control/Comparison Class

On the other hand, comparison class is a group of Basic Four (B4) pupils who were not given Graphic Organizers. That is, they were not given the same

treatment as the Experimental Class. Both classes were instructed with the same instruction materials and content, but graphic organisers were not presented to the comparison class. Conventional methods were used in the control group, which required pupils to read texts severally to comprehend content and answer the comprehension questions.

Administration of Posttest

Posttest was administered with the view to collecting data on the pupils' reading comprehension achievement after the implementation of the strategies. It was done in order to see how organisers improved pupils' understanding of the text. It was made up of a passage entitled "The New School" which was imitated by the researcher. The test was made up of 20 questions Six of the 20 items were objective items. Ten items required pupils to write facts and make inferences from the narrative. Four items required pupils to write other words as substitute words in narrative (find post-test in Appendix 2). The posttest data was compared to the pretest data in order to respond to validate hypotheses of the study.

Ethical Consideration

Ethical consideration is defined by Seidman (2006) as the appropriate standards of conduct necessary while conducting a study. He continued that ethics enables participants understand the goals, intentions, and the effect that certain participation could have on them. Mertens (2010) asserted that informed consent emerges from the subject's right to liberty, which is backed by this argument. Punch (2008) similarly believes that researchers should be cognizant of ethical difficulties, particularly in social studies since it deals with personal

data. In research study, ethical judgements and sensitivity for subjects are critical. As a result, various ethical considerations were considered in this study.

The privacy rights, intentional participation, no hurt to individuals, secrecy in identity, and confidence have all been valued. It is indeed critical to underline that, pupils have the reasonable expectation of privacy, which should be respected at all circumstances. Therefore, in context, the study's subjects' private information was protected, and no one was ever investigated outside their permission. Furthermore, one most important aspects of ethical issues in research are the respondents' willingness to participate. Responding to things in this type of study took a lot of time and energy, which could cause participants' daily routines to be disrupted. It was for this reason that the study's objectives and relevance were described to the participants, allowing them to exercise their freedom to decide on participating in the study.

Additional ethical concern in research studies is that the activity must not harm participants, regardless of if they contribute or otherwise. The term "harm" in this context might refer to physical, cognitive, or emotional damage. As a result, I ensured that neither of the items were harmful to the pupils' bodily, mental, or social well-being. Moreover, as aspect of the study's ethics, the overall purpose is to keep and safeguard the subjects' well-being, interests, and identities. I utilized anonymous and confidence procedures including such non-disclosure of subjects' identities in order to ensure subject safety. As a consequence, the subjects were informed that the information they provided as answers will remain confidential.

It is indeed worth noting that misconduct, like duplication, is not tolerated. When a scholar misrepresents, distorts, or plagiarizes someone else's

material, it is called plagiarism. To prevent plagiarizing, I strictly adhered to the scholarly code of conduct. Importantly, additional resources' notions, ideas, and publications were correctly recognized by including pertinent information in the in-text and main references where appropriate.

Also, the University's required means of checking plagiarism was followed. That is, Turnitin Assessment for plagiarism was run. After running the plagiarism assessment, it was realized that the similarity index was rightly within the required percentage (below 19%) and that validated how free the report is from plagiarism.

Data Processing and Analysis

Editing, coding, and statistical analysis were all part of the data analysis step. To ensure easy identification, mistakes, and coding, each test was scored and labeled serially. All mistakes, such as outliers and missing values, were checked using frequencies. Quantitative data analysis was performed due to the numerical nature of the data collected.

Paired Sampled T-Test analysis was conducted to find difference in pretest mean score and posttest mean score of the pupils who used graphic organizers in reading comprehension as intended in hypothesis one. Independent-Sample-T-Test was conducted to compare reading comprehension mean scores between males and females who used graphic organizers. In addition, because non-equivalent (unrelated) groups were used due to absence of random assignment of subjects, there was a possibility that the results could be affected by variables (covariates) other than the intended variable (the graphic organizers and conventional methods). Hence, to control confounding variables (Covariates) that could affect the results and to verify if the results,

Two-Way-Analysis of Covariance (ANCOVA) (for two independent variables) was run to hypotheses 3 with the help of SPSS version 26 at 0.05 significance level. The pretest scores served as covariates while the posttest scores were used as dependent variable.

Chapter Summary

This chapter described the tactics and procedures used to attain the study's objectives. The instruments' accuracy and consistency, and also the design of the study, demographics and sample size, research instruments, and collecting and analyzing data methodologies, have been carefully investigated. Although the quasi-experimental research method was the best fit for the investigation, it has certain drawbacks, such as not possessing a similar validity as actual studies due to the lack of randomness of the people in the treatment and comparison groups, making benchmark equivalency impossible to ensure. Despite the design's flaws, the investigation was declared acceptable because it was hard to gather all of the pupils in a place and randomize them to treatment and comparison groups because the investigation concentrated on the influence of graphical organisers on pupils' comprehension performance.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSIONS

Introduction

The study was aimed to find the effect Graphic Organisers (KWL, Story Map and Four-Corner Vocabulary Chart) have on pupils' reading comprehension achievement. It also looked for gender variations in the use of graphic organisers for text instruction. Specifically, this research sought to find out whether:

1. there is a statistically significant difference in pupils' mean score before they used graphic organizers and their mean score after pupils have used graphic organizers in reading comprehension.
2. there is a large discrepancy in text comprehension achievement across males and females who studied with Graphic Organisers.
3. there is statistically significant effect of graphic organizers against conventional method on pupils' reading comprehension achievement not.

As there was no random selection of individuals in comparison class, the research used a quasi-experimental approach. The pretest posttest nonequivalent comparison group design was used in this study. An experimental group and a nonequivalent comparator class make up the design (Amedahe & Gyimah, 2019). Tests in the form of pretest and posttest was used as an instrument for data collection on pupils' reading comprehension achievement. The tests were in the form of pretest and posttest. Paired-Sample T-Test was used to test for research hypothesis one (Ho1). On the other hand, to test hypotheses 2, Independent-Sample T-Test was conducted to assess

difference in reading comprehension achievement mean scores between males and females who used graphic organisers and the effect of graphic organizers against conventional method on pupils' reading comprehension achievement (hypothesis 3) was tested with Two-Way Analysis of Covariance. (See detailed results of analysis in SPSS in appendix 7)

Results

Description of the Sample

As presented in Table 5, there were 84 pupils involved in the study. Among the 84 pupils, 39 (46.4%) and 45 (53.6%) were males and females respectively. In group-wise, the Treatment Group (B) had 40 (47.6%) pupils of which 14 (35%) were males and 26 (65%) were females. In the Control Group (A), there were 44 (52.4%) among which 19 (43.2%) and 25 (56.8%) were males and females respectively. In addition, as far as age is concerned, the pupils' ages ranged from 9 to 15. The analysis shows that 10 (10.7%) were 9 years old, 17 (20.2%) were 10 years, 20 (23.8%) were 11 years, 23 (27.4) were 12 years, 8 (9.5%) were13 years, 5 (6%) were 14 years and 2 (2.4%) of the pupils were 15 years old. The modal age of the pupils was 12 years and the mean age was 11.32 (SD = 1.458).

Table 5: Distribution of Subjects (Treatment and Control Groups)

Variable	Value	N	Percentage (%)
Gender	Male	39	46.4
	Female	45	53.6
Gender in Groups:	**Treatment**		
	Male	14	35
	Female	26	65
	Control		
	Male	19	43.2
	Female	25	56.8
Age	9	9 (4 treatment, 5 control)	10.7
	10	17 (6 treatment, 11 control)	20.2
	11	20 (9 treatment, 11 control)	23.8
	12	23 (13 treatment, 10 control)	27.4
	13	8 (5 treatment, 3 control)	9.5
	14	5 (2 treatment, 3 control)	6.0
	15	2 (1 treatment, 1 control)	2.4
Group			
	Treatment	40	47.7
	Control	44	52.3

Source: Field Data (2022)

Two teachers were selected as research assistants. The two teachers were both females with equal years of teaching experiences. They were all Bachelor degree holders. They were identified by "Fac_1" and "Fac_2" (Facilitator 1 and Facilitator 2). The Fac_1 was 34 years with 7 year of teaching experience whilst Fac_2 was 33 years with 7 years of teaching experience. The pretest findings indicate that, despite the fact that there was no statistically significant distinction, School A had a greater mean than School B. As a result, Fac 2 was taught how to use graphic organisers to help pupils with reading proficiency. The characteristics of the research assistants is seen in Table 6.

Table 6: Characteristics of Research Assistants

Assistant ID	Gender	Age (years)	Years of Teaching Experience	Academic Qualification	Group
Fac_1	Female	34	7	B.Ed Degree	School A
Fac_2	Female	33	7	B.Ed Degree	School B

Source: Field Data (2022)

Hypotheses Testing

The focus of the research was to see whether the use of graphic organisers had a substantially improved on pupils' comprehension skills and if there is a big variation in comprehension abilities comparing pupils that got graphic organisers and pupils who hardly received it. Similarly, the researchers wanted to see if there existed a great disparity in comprehension success comparing males and females who were given graphic organiser.

Prior to and after the experiment, tests were administered to the two classes in an attempt to address the research hypotheses. Both assessments were reading tests (see Appendices 1 and 2) which required pupils to read and respond to items in the story. Each test was scored at a total mark of 20. All the two groups took the same tests.

In total, 84 pupils sat for the tests. Among the 84 pupils, 39 (46.4%) and 45 (53.6%) were males and females respectively. In group-wise, the Treatment Group (B) had 40 (47.6%) pupils of which 14 (35%) were males and 26 (65%) were females. In the Control Group (A), there were 44 (52.4%) among which 19 (43.2%) and 25 (56.8%) comprised boys and girls correspondingly. The modal age of pupils was 12 years and the mean age was 11.32 (SD = 1.458).

Before testing for hypotheses, the skewness of the data sets (scores of pretest and posttest) were determined to give a valuable decision on the type of tools (whether parametric or nonparametric) needed for the analysis. Even though Kolmogorov-Smirnov and Shapiro Wilk tests were conducted, the outcomes of Shapiro Wilk test were utilised to assess the data's normality for School A and School B because of the small sample sizes of the groups and the power of the normality test. This is because according to Mishra, Pandey, Singh, Keshri, & Sabaretnam, (2019), the Shapiro-Wilk test is more appropriate method for small sample sizes (<50 samples) even though it can be used for larger sample size whereas Kolmogorov–Smirnov test is used for $n \geq 50$. Furthermore, because Kolmogorov-Smirnov has a minimal power, it should not be used to test normalcy (Thode, 2002 as cited in Ghasemi & Zahediasl, 2012). As a result, after Lilliefors corrections, the Shapiro-Wilk test has greater power as compared to Kolmogorov-Smirnov testing (Steinskog, Tjstheim & Kvamst, 2007).

Analysis using the Shapiro Wilk tests showed a p-value (sig.) of 0.086(44) = 955 and 0.072(40) = .938 for School A and School B respectively in pretest. The Posttest also produced p-values (sig.) of 0.195(44) = .965 and 0.375(40) = .971 for School A and School B in the post-test. Meanwhile, as per Mishra et. al (2019), "when $P > 0.05$, null hypothesis (data are taken from normal distributed population) accepted and data are called as normally distributed". Hence, it is realised that normality was ascertained as the P-value of both groups in each of the pretest and posttest is greater than "0.05". Table 7 and Table 8 show the normality of the data sets for both schools in Pretest and

Posttest. Since data were normally dispersed, parametric methods were employed in the analyses.

Table 7: Normality Tests for Pre-Test

	Shapiro-Wilk		
	Statistic	df	Sig.
School A	.955	44	.086
School B	.948	40	.072

Source: Field Survey (2022)

Table 8: Normality Test for Post-Test

	Shapiro-Wilk		
	Statistic	df	Sig.
School A	.965	44	.195
School B	.971	40	.375

Source: Field Survey (2022)

Pupils' comprehension achievement was compared between groups using Independent-Sampled T-Test to verify difference between the characteristics of the two groups before the experiment was done. This was undertaken to maximise the validity of the comparisons; previous to the treatment, these two classes had to be as comparable in terms of attributes (Hanita, Ansel & Shakman, 2017). The Sig. result of the Levene's Test for Homogeneity of Variances was .041, that is lesser than .05 and indicating equal variances not assumed. Therefore, the bottom degree of freedom (df) was used. By so doing, it was realised that the performance of the School A (Mean = 9.14, SD = 3.159) was not statistically different from the performance of the School B (Mean = 8.58, SD = 4.212); t(72.014) = .686,

p=.495, (two tailed). Besides, the results show that the subjects in both groups shared similar characteristics in terms of comprehension ability. This verifies the words of Hanita et al. (2017) who state that "at minimum, the evaluator must verify that the treatment and the comparison groups have a similar mean for the outcome measured at baseline" (p.6). In addition, the Mean score of all the pupils was 8.87(SD=3.686) which is lesser than the pass mark (10 marks) showing that most of the pupils did not do well in the pre-test and consequently had problem understanding what they read.

Table 9: Comparison of Pre-Tests Scores Between School A and School B

	"Mean	Std. Deviation	t	df	Sig. (two-tailed)"
School A	9.14	3.157	.686	72.014	.495
School B	8.58	4.212			

Source: Field Survey (2022)

Hypothesis 1: There is no statistically significant difference in pretest mean score and posttest mean score of the pupils who used graphic organizers in reading comprehension

Since the data was normally distributed, parametric analysis using Paired-Sample T-Test was carried out by means of SPSS in order to test if there is statistically significant difference in pretest mean score and posttest mean score of the pupils who used graphic organizers in reading comprehension. The outcome of the analysis was intended to provide an answer whether the null hypothesis (There is no statistically significant difference in pretest mean score and posttest mean score of the pupils who used graphic organizers in reading comprehension) will be rejected or fail to reject. Because these were the groups

that were given graphic organisers, the Pre-Test and Post-Test scores of School B were compared. Table 10 shows the results of the Paired-Sample T-Test.

Table 10: Comparison of Pupils' Mean Scores in Pretest and Posttest

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	8.57	40	4.212	.666
	Posttest	13.6000	40	2.63896	.41726

Paired Samples Test: Paired Differences

		Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
			Lower	Upper			
Pair 1	Pretest-Postest	-5.0250	-5.7253	-4.3247	-14.515	39	.000

Source: Field Survey (2022)

After the analysis, a statistically significant difference between pupils' Pretest mean scores (Mean = 8.58, SD= 4.212) and their Post-Test mean scores (Mean = 13.60, SD = 2.638); t(39) = -14.515, p=.001 as shown in Table 10 was achieved. Hence, the null hypothesis is rejected. Thus, it is resolved that there is a statistically significant improvement in pupils' achievement in reading comprehension after they have used graphic organizers (KWL, Story Map and Four-Corner Vocabulary Chart) than before they have used graphic organizers.

Research Hypothesis 2: There is no statistically significant difference in reading comprehension achievement posttest means scores between males and females who used graphic organisers.

To see if there were any differences in comprehension ability comparing male and female pupils who were directed with graphical organisers, an Independent-Sampled T-Test was run with the use of SPSS.

The P-Value (Sig.) of the Levene's Test for Equality of Variances in the Pretest was .001, which is less than .05 and indicating that equal variances was not assumed. As a result, the bottom degree of freedom (df) was employed. By so doing, It was realised, that the performance of the Males (Mean = 8.00, SD = 2.320) was not statistically different from the performance of the Females (Mean = 8.88, SD = 4.958); t(37.532) = -.767, p=.448, (two tailed). This means that before the implementation of the reading strategies, the pupils', in terms of gender, shared similar characteristics in relation to comprehension ability. The analysis is summarized in Table 11.

Table 11: Comparing Pretest and Posttest Scores of Males and Females in School B

	Mean	Std. Deviation	t	df	Sig. (two-tailed)
Pre-Test					
Male	8.00	2.320			
Female	8.88	4.958	-.767	37.532	.448
Post-Test					
Male	13.50	1.743			
Female	13.65	3.046	-.203	37.781	.840

Source: Field Survey (2022)

Comparable to the pretest result, after experimenting, the posttest result revealed no statistically significant disparity between achievements of Males (Mean = 13.50, SD= 1.743) and the performance of Females (Mean = 13.65, SD=3.046); t(37.781) = -.203, p=.840, (two tailed) as shown in Table 11. Since the Levene's Test for homogeneity showed a Sig. value of .04 for the post-test which is lesser than .05 and means that Equal variances not assumed, the bottom degree of freedom (df) was used. So, the hypothesis, there is no discernible difference in reading comprehension between males and females who got graphic organisers, is not rejected. Hence, it is concluded that males and females achieved equally using graphic organisers for reading comprehension.

Research Hypothesis 3: There is no statistically significant effect of graphic organizers on pupils' reading comprehension achievement compared to conventional method.

Since non-equivalent (unrelated) groups were used due to absence of random assignment of subjects, there was a possibility that the results could be affected by variables (covariates) other than the intended variable (the graphic organizers and conventional methods). These are threats to external validity. Two-Way Analysis of Covariance (ANCOVA) (for two independent variables) was done with the help of SPSS version 26 at 0.05 significance level to find the effect of the interventions on pupils' reading comprehension achievement. The pre-test data served as covariate while the post-test data were used as dependent variable. The results are presented in Table 13.

Before the analysis, the assumption of homogeneity of regression was examined through the use of Levene's Test of Equality of Error Variances. At a significance level of .05, it was realised that the p-value (sig) was .901 which

is greater than .05 and implies that equality of variance across groups was not violated proving that the results of the study is accurate. The Table 12 shows the analysis.

Table 12: Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
.193	3	80	.901

After meeting the assumptions of two-way analysis of covariance, the analysis to find the effect of graphic organizers on pupils' reading comprehension achievement against conventional method while controlling the pretest (covariate). Table 13 show the results of the analysis.

Table 13: Effect of Interventions on Pupils' Comprehension Achievement

Tests of Between-Subjects Effects (Dependent Variable: POST_TEST_SCORE)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	724.533[a]	4	181.133	126.324	.000	.865
Intercept	523.611	1	523.611	365.171	.000	.822
PRE_TEST_SCORE	346.874	1	346.874	241.913	.000	.754
Sex	.880	1	.880	.613	.436	.008
Interventions	**414.200**	**1**	**414.200**	**288.867**	**.000**	**.785**
Sex * Interventions	.329	1	.329	.229	.633	.003
Error	113.277	79	1.434			
Total	11718.000	84				
Corrected Total	837.810	83				

a. R Squared = .865 (Adjusted R Squared = .858)

Source: Field Data (2022) N=84

As the Pretest scores was used as a covariate to control the distinction between the interventions (graphic organizers and conventional methods), it can be seen from Table 13 that the pretest with a significant level of .001, which is lesser than the threshold of .05, is a strong covariate that has effect on the

posttest. Even though the pretest accounted affected the posttest, it can be realised that after controlling for the covariate, the intervention with a significant level of .001 which is lesser than the threshold .05, has effect on itself. Therefore, the result is significant. It can be seen that the total variation to be explained (SST) was 11718.000 units (corrected total). Out of this figure, the amount of variation accounted for (SSM) by the experimental manipulation was 724.533 (corrected model) units of which the interventions accounted for 414.200 units, equivalent to 78.5% (partial eta square). About only 1103.277 units (SSR) were unexplained (error). This means that while controlling for the covariate (pretest), one intervention is very effective than the other.

Hence, to verify which intervention was better between graphic organizers and conventional methods, estimated means were compared. The Table 14 show the estimated means and pairwise comparison of the two interventions.

Table 14: Comparison of Estimated posttest achievement means

Interventions	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
Conventional	9.220[a]	.182	8.857	9.583
Graphic Organizer	13.816[a]	.199	13.420	14.212

Pairwise Comparisons

(I) Interventions	(J) Interventions	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b] Lower Bound	Upper Bound
Conventional	Graphic Organizer	-4.596*	.270	.000	-5.134	-4.058
Graphic Organizer	Conventional	4.596*	.270	.000	4.058	5.134

Source: Field Data (2022) N=84

From the Table 14, it can be seen that graphic organizers with estimated mean of 13.82 (standard Error of .199) was significantly effective on pupils' reading comprehension achievement than the conventional method with estimated mean of 9.22 (standard error of .182) under a mean difference of 4.596 where the p-value (sig) of .001 is less than the threshold .05; $F(1, 83) = 288.867$, $p = .001$, $n^2 = .785$. Thus, while controlling for the pretest (covariate), the graphic organizers were significantly effective in pupils' achievement in reading comprehension than conventional method.

Even though the hypothesis 2 is meant to find if there is significant difference between means scores of males and females who used the graphic organizers, it is still necessary to find the effect of sex on the interventions. In examining that, Table 14 reveals that males and females do not respond differently to the use of the interventions as the p-value (sig) of .633 for the interaction between sex and interventions (Sex * Interventions) is greater than the threshold of .05 while controlling for the pretest (covariate). The interaction between sex and interventions accounted for 0.3% (.329 units) of the total corrected model (724.533). This adds to the hypothesis two verifying why there is no statistically significant difference between the mean scores of males and females who used graphic organizers. Thus, whether males of females, pupils achieved equally when using graphic organizers in reading comprehension. Also, the Figure 10 verifies that there is no interaction between the two interventions, graphic organizers and conventional method.

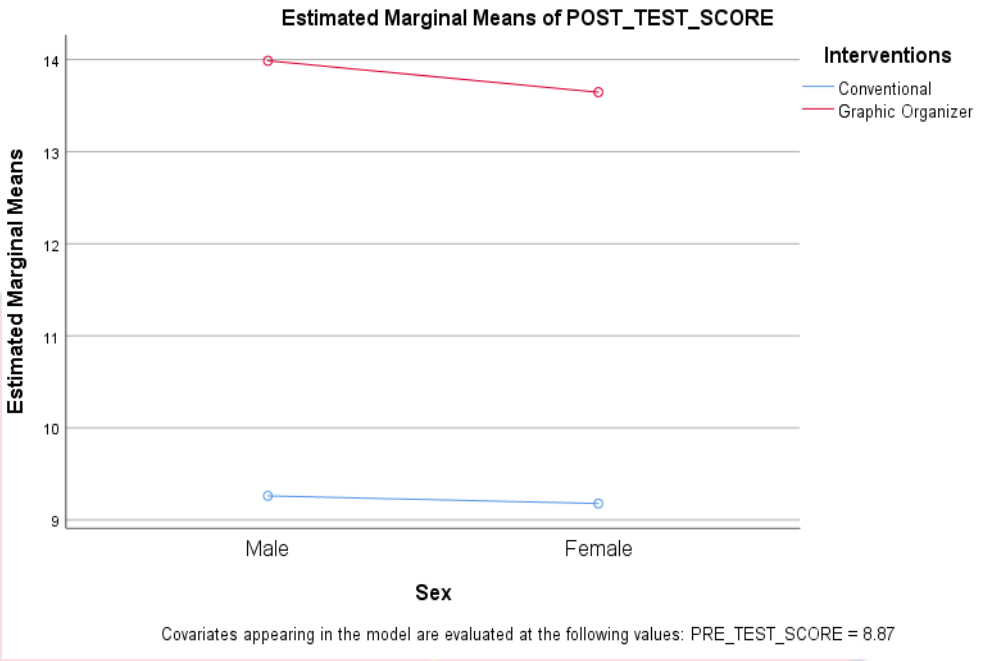


Figure 10: Profile Plots

Discussion of Research Findings

Hypothesis 1: There is no statistically significant difference in pretest mean score and posttest mean score of the pupils who used graphic organizers in reading comprehension.

The study was intended to find out if there was statistically significant difference in pretest mean score and posttest mean score of the Ghanaian Basic Four (B4) pupils who used graphic organizers in reading comprehension achievement. Since it is important to determine the pre-existing characteristics of the subjects, pre-test was conducted for the School B (experimental group) at beginning of the study, before guiding them with graphic organizers, to establish the pupils' comprehension achievement baseline. Data analysis was done and it was realised that the pupils' average score in comprehension was below the pass mark. However, after implementation of the strategy, data collection and analysis, it was discovered that using graphic organisers (KWL, Story Map, and Four-Corner Vocabulary Chart) had a significant improvement

on the pupils' comprehension skills as their posttest mean score was significantly greater than their pretest mean score.

The findings of this study do not corroborate that of Hidayanti (2018) who conducted research on "Using Story Mapping Technique on Narrative Text to Teach Reading Comprehension at SMP N 11 Bandar Lampung in the 2016/2017 Academic Year". Hidayanta found that pupils had difficulty grasping the primary idea of the book, and their ability to read comprehension was still low even after he had implemented organisers. This study's finding differs from Hidayanta's because while in his study visual organisers had insignificant mean difference between pupils' comprehension achievement, this study's finding found substantial difference pupils' pretest mean score and posttest mean score on their comprehension abilities. Thus, pupils in school B had significant improvement in their comprehension achievement. This difference may be because of the difference in level of pupils used and the difference in setting. Hidayanta (2018) used second-grade children from SMP N 11 Bandar Lampung in Indonesia while this research concentrated on fourth-grade pupils of Effutu Municipality in Ghana. Also, difficulty in class control reported by Hidayanta may have caused the failure of graphic organizers in improving pupils' comprehension. Meanwhile, this study had no complain of difficulty in class control.

In additions, as far as the use of graphic organizers is concerned, even though Hidayanti's (2018) finding was is not corroborated, the findings of Albufalasa (2019) is verified. In consistency with this study's finding, Albufalasa discovered that implementing graphic organisers noticeably enhanced English pupils' understanding of the text of narratives. He suggested

that the findings of his study could be used to help English pupils become better readers of narratives and to encourage pupils to read more. In the same way, juxtaposing this study's finding with the finding of Germinton (2017) confirms that if pupils used graphic organizers for reading comprehension, their motivation increased and their anxiety reduced. Hence, their comprehension achievement increases significantly.

Generally, it can be said that graphic organizers considerably enhance the comprehension achievements of pupils as it helps them to fully organize their thoughts and ideas in order that they understand what they read. Specifically, K-W-L Chart has significant improved on pupils' ability to gain knowledge and make inferences from a narrative text. Also, using Story Map on pupils' ability to identify setting and characters in a narrative text brings a significant improvement and helps them to achieve positively. Further, the use of Four-Corner Vocabulary Chart on pupils' word comprehension brought a significant improvement on the pupils' comprehension achievement.

Research Hypothesis 2: Differences between mean scores of males and females on Graphic Organisers in comprehension

Hypothesis two was meant to find a discrepancy in text comprehension achievement between males and females guided with graphic organizers. The findings derived from the pre-test indicated that before the experiment, the pupils, in terms of males and females, in School B had similar characteristics in reading comprehension achievement as in the pretest, there was hardly statistically substantial difference in their mean scores. Similarly, as expected, the results of this hypothesis revealed there was no statistically substantial differences in text comprehension achievement among

males and females following the intervention. This was the results of analysis made with Independent-Sampled T-Test. The results also confirmed a statistically insignificant difference between mean score of the treatment group's males and females. Also, after using the two-way analysis of covariance results, it was realised that sex had no effect on the use of graphic organizers in achieving in reading comprehension even after controlling errors that could have affected the results. This verified that the result produced by the independent t-test was reliable. So, the null hypothesis was finally failed to reject. Hence, it was a fact that there was no statistically significant difference in means scores of males and females who used the graphic organizers. Besides, sex did not have effect on the use graphic organizers as far as reading comprehension achievement was concerned.

For gender, comparing this study's finding to that of Foxworthy (1995) brings about consistency in findings. Foxworthy discovered no sex mean disparities in using graphic organisers for improving comprehension. However, Foxworthy conducted her study twenty-five years ago and there might be other studies that have found different results. However, better still, Owolabi and Adaramati (2015) investigated "the effects of graphic organizer and sex on pupils' academic achievement." Their findings seemed to be more beneficial in males than females. The primary influence of sex, on the other hand, was insignificant statistically. Likewise, Alabi et al. (2015) found that pupils, irrespective of sex, performed extremely well after the use of organizers with no difference between males and females. Their finding was verified by Odewumi et al. (2019) who likewise discovered that when teaching pupils with graphical organisers, gender had no bearing on their achievement. The

discoveries of these researchers are consistent with this study's finding that show that there is no quantitatively significant difference between mean score males and mean score of females while using graphical organisers for texts comprehension in Ghana's Effutu Municipal.

Research Hypothesis 3: There is no statistically significant effect of graphic organizers against conventional method on pupils' reading comprehension achievement

This third hypothesis sought to reveal if a statistically significant discrepancy existed in the achievement in comprehension between pupils who received graphic organisers and pupils whose comprehension achievement solely depended on the use of conventional method of reading. Before experimenting, the pre-test result was used to measure if the equivalent groups chosen shared similar characteristics. It was found that they shared similar characteristics in relation to the dependent variable, comprehension achievement. Besides, the pre-test was used to decide on which of the two schools in the Municipality to serve as comparison class and which to study as treatment class. Even though results were insignificant, since School A had a higher mean than School B, School B, was used as treatment group. Besides, the pre-test set as a baseline from which post-test result was compared. Based on the pre-test result, it was presumed that no significant variation existed between School A and School B statistically.

However, after the posttest analysis, it was found that the pupils who were guided with graphic organizers outperformed the pupils who were solely made to go through the conventional method where they read texts severally and respond to question(s) afterwards. This means that after the use of graphic

organizers, there was a quantitatively huge distinction between the experimental and comparison groups, with the treated class performing significantly higher than the comparison class's pupils. However, result of analysis was made with the use of independent t-test which does not control for covariates but uses unadjusted means. It was believed that errors could have been present to cause the differences since non-equivalent groups (which is liable to covariates) were used.

Hence to verify the reliability of the results, two-way ANCOVA analysis was run. The outcome showed also that a substantial effect of graphic organizers against conventional method in comprehension achievement. The interventions were found to be effective on their own. However, adjusted means scores of pupils who received graphic organizer instructions and pupils who received conventional instructions even after controlling errors that could have affected the results revealed that graphic organizers are significantly effective that conventional methods. As a consequence, the null hypothesis, there is no statistically significant effect graphic organizers in comprehension achievement against conventional means, was disproved. As a result, as compared to traditional lessons, graphic organiser lessons had a substantial effect on comprehension accomplishment.

Consequently, the findings of this research substantiated Ria and Ridha's (2017) who found a significant difference in 8th-grade pupils' comprehension skills between pupils taught with KWL Organiser and pupils taught with convention technique at Bina Jaya Junior High School in Palembang. Likewise, the findings of this study are compatible with that of Pardede (2019), who determined that employing GOs does have a substantial effect on

improving 11th-grade English pupils' reading comprehension in SMA Negeri 102 Jakarta when compared to traditional methods. According to his research, GOs are useful tool for improving English pupils' understanding of the text.

Even though the setting of this study is different from that of Ria and Ridha (2017) and Pardede, it is still consistent with that of Odewumi et al. (2019) who, in Nigeria, found that pupils taught with the graphic organizer performed better than those taught with conventional method. Similarly, Rahat, Rahman, and Ullah (2020) stated that substantial differences in average score of both classes were detected, and the findings suggest that using GOs had a favourable influence on pupils' comprehension. It can also be concluded from the findings that when new knowledge is related to the pupils' "cognitive structure", the material is quickly learnt and this is compatible with schema theory (Anderson & Pearson, 1984).

Verification of Effectiveness of Theories

Finally, and generally, cognitivists theories were chosen to support this study. Hence, all activities were done on the basis of the cognitivist's assumptions, especially that of the schema theorists. Gillani (2010) and Zhang (2010) as cited in Quarshie (2017) are of the view that cognitive scientists refer to how existing experience is used to organize, retain, and interpret fresh knowledge as schema. As a result, the instructors chose narratives that were appropriate to pupils' demands, interests, personal characteristics, and culture so as to obtain meaningful materials for the pupils to grasp. Where necessary, pupils were assisted in the development of new schemata. Narrative texts that have links with leaners' background knowledge and enhance their

interests were selected for the study. The usage of graphic organisers (KWL Chart, Story Mapping and FCVC) helped in achieving this.

The KWL Chart assisted pupils in reactivating their previous understanding and link previous knowledge to current information, set learning objectives and assessed them after reading a text. It also helped pupils to discuss passages given to enhance their comprehension. As a result, the use of K-W-L Chart catered for Ausubel's (1963) Subsumption Theory and Anderson's (1977) Schema Theory which agree that whenever fresh materials are related to related concepts already present inside the cognitive framework, learning occurs. Also, the story map was used to assist pupils to break passages into various chunks as setting, characters, problems and solutions. Also, to activate or build pupils' vocabulary knowledge using the Four-Corners Vocabulary Chart, the pupils must first scan the text or passage given and identify the words or phrases they do not understand. These graphic organizers satisfied George Miller's (1962) Material Process Theory which states that chunking information helps pupils learn more effectively. Also, coincidentally, text comprehension entails the activation of pupils' prior knowledge in order to assist them retain information in order to access a text (Albufalasa, 2019) which lies in the assumption of the schema theorist.

As discussed previously, it can be realised that for pupils to learn well, information must be logically presented to them by chunking, they must be made to be able to mediate their own learning, their existing knowledge much be linked to new information and there must be reduction in information to be taken into the memory at a time. Graphic Organizers ensure all these assumptions. Graphic organizers assist pupils in finding and organizing

relationships, depicting structural patterns relevant to stories, locating information and key vocabulary in a book, and summarizing main concepts. They also assist pupils in problem solving and memory and comprehension development (Krasnic, 2011). KWL Charts, Story Maps and Four-Corner Vocabulary Charts are graphic organizers that activate pupils' schemata and enhance their comprehension. Hence, the choice of the cognitivists theories to support the study was appropriate.

Summary

The study's findings and comments were presented in this chapter. The study's findings revealed the effect of graphic organizers (KWL, Story Map, and Four-Corner Vocabulary Chart) on pupils' reading comprehension. The effect of K-W-L Chart on pupils' ability to gain knowledge and make inferences from a text, the effect of Story Map on pupils' ability to identify setting and characters in a narrative text and the effect of Four-Corner Vocabulary Chart on pupils' word comprehension have been revealed. In addition, the discrepancies in comprehension achievement amid males and females taught with graphic organisers had been brought to light. Similarly, researchers discovered a disparity in text comprehension achievement amid pupils taught with graphic organisers and pupils taught using traditional method. The employment of graphical organisers (KWL, Story Map, and Four-Corner Vocabulary Chart) was discovered to have a substantial effect on the pupils' reading comprehension achievement. Specifically, K-W-L Chart has significant influence on pupils' ability to gain knowledge and make inferences from a narrative text. Also, using Story Map on pupils' ability to identify setting and characters in a narrative text brings a significant influence and helps them to

achieve positively. Further, the use of Four-Corner Vocabulary Chart on pupils' word comprehension brought a positive influence. This study's finding shows that when it comes to using organisers for comprehension, in the Effutu Municipality of Ghana, statistically insignificant difference in the performance of boys and girls is found. Finally, it was found that the pupils who were guided with graphic organizers outperformed the pupils who were solely made to go through the conventional method.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This part summarises the findings, conclusions, and recommendations of the study. It also discusses the study's contributions to knowledge and makes recommendations for future investigations.

The purpose of this study was to find the effect of graphic organizers (K-W-L Chart, Story Map and Four-Corner Vocabulary Chart) against conventional method on Basic Four (B4) pupils' reading comprehension achievement. It also looked for differences, in using of graphic organisers to comprehend texts, between males and females. Specifically, it sought to discover whether:

1. there is a statistically significant difference in pupils' mean score before they used graphic organizers and their mean score after pupils have used graphic organizers in reading comprehension.
2. there is a large discrepancy in text comprehension achievement across males and females who studied with Graphic Organisers.
3. there is statistically significant effect of graphic organizers against conventional method on pupils' reading comprehension achievement not.

The following research hypotheses were formulated and tested:

Ho1. There is no statistically significant difference in pretest mean score and posttest mean score of the pupils who used graphic organizers in reading comprehension.

Ho2. There is no statistically significant difference in reading comprehension achievement posttest means scores between males and females who used graphic organisers.

Ho3. There is no statistically significant effect of graphic organizers on pupils' reading comprehension achievement compared to conventional method.

Since subjects were not randomly assigned to treatment and comparison groups, this research follows quasi-experimental design. The pretests-posttest nonequivalent comparison group design was used. Comprehension Test was developed and administered as a research instrument for 84 pupils from two institutions which were randomly selected by using lottery technique and purposively selecting Basic Four pupils in each of the two schools. Pretest and posttest were used. To examine the hypothesis 1, Paired-Samples T-Test was used but for hypothesis 2, Independent-Sample-T-Test. Two-Way Analysis of Covariance was used to examine hypothesis 3.

Summary of Key Findings

The following are the major discoveries in relation to the hypotheses of the:

1. The key finding was that guiding pupils with graphic organizers improved their comprehension achievement significantly. Further analysis revealed that employing KWL Chart significantly improved pupils' ability to make inferences and recall issues in a given narrative text. In addition, it was found that the use of story map significantly improved pupils' ability to identify characters and setting in narrative texts. Finally, it was showed that the use of Four-Corner Vocabulary Chart improved pupils' vocabularies significantly.

2. As far as sex is concerned, there was statistically insignificant difference in mean scores of males and females who used graphic organisers for narrative text comprehension. This is because after assisting pupils in with graphic organizers to read, the post test result and analysis showed that both males and females in the experimental group had similar means scores that did not have statistically significant difference.
3. Another key finding was that guiding pupils with the use of graphic organizers in understanding narrative texts improved their comprehension achievement significantly as compared the use of conventional method (allowing pupils to severally read narratives with the view to answering comprehension test items).

Conclusions

The following conclusions were reached based on the study's findings.

Firstly, the data show that Graphic organisers give educators effective tools to help pupils improve their understanding of a text. Specifically, the use of K-W-L Chart enhances pupils' ability to identify issues in narrative texts. It also helps pupils to assess their learning in all stages. Besides, story map helps pupils to identify characters and setting in a narrative text. Also, Four-Corner Vocabulary Chart helps pupils to understand and use new words and hence, improve their vocabulary skills.

Secondly, sex, whether male or female, does not determine one's ability to use graphic organizers in comprehension of narrative texts. Both males and females have equal abilities in using graphic organizers to analyse and understand a given narrative text.

Finally, it is concluded that pupils who get access to graphic organisers are able to understand bulky amount of information in narrative texts in a limited time than pupils who use conventional method of reading which gives room for pupils to read a narrative text several times in order to answer questions.

Recommendations

First, the study recommends that the GES and NaCCA include using graphic organisers in Ghana's basic school curriculum, train facilitators on how organizers are used to assist pupils to read and comprehend and also encourage facilitators to use these organizers. Training can be done through organization of in-service training programmes for facilitators. Facilitators should be trained to make use KWL Chart to help pupils link their precious knowledge to new learning and assess their own learning and improve their abilities to find key issues in narrative texts. Aside that, facilitators should be made aware and encouraged that story maps and four-corner vocabulary charts can be used to assist pupils in identifying literary elements and improve vocabulary respectively.

Second, rather than enabling pupils to read narrative texts repeatedly to better understand it, the study recommends that public school facilitators adopt and adapt to implementation of graphic organisers in promoting reading comprehension. Using graphic organizers allows pupils to understand a given text within a shorter period of time. Meanwhile the conventional method of reading is time wasting and breeds boredom.

Finally, pupils, irrespective of their sex, must be taught to use graphic organizers and encouraged to use them in organizing ideas and knowledge to facilitate their comprehension of new information. This can be done by

encouraging pupils to develop appropriate reading habits, ensure collaboration and punctuality which can predict their comprehension achievement.

Contribution to Knowledge

Contributing to available research is among the primary motivations that sparkle an investigation. Hence, Asamoah (2018) stated that "the ability of any research to contribute to knowledge could be displayed in four key areas which include developing a concept, thinking through the methodology, building on an existing study and being able to change directions" (p.54). Consequently, the study's outcome contributes to information and ideas about variables related to the effect of graphic organizers on pupils' reading comprehension achievement and also the difference between gender on using graphical organisers for narrative comprehension.

It appeared that there was no literature that accounted for the effect of graphical organisers on pupils' narrative comprehension achievement in Ghanaian context. Hence, the literature used in supporting the study were foreign. However, apart from revealing that graphic organizers improve pupils' comprehension achievement significantly, it has also added to the literature in Ghana, specifically, the Effutu Municipality. As a result, this study has added to literature by providing empirical evidences for investigators who demand to undertake comparable study.

Furthermore, this research has served as a reference point and a guide to stakeholder of education who are interested in finding effective means to make reading and comprehension interesting simple for pupils. The study has proven that it is better for pupils to be guided with graphic organizers than the use of conventional method in reading and comprehension. It has also verified

literature on the effectiveness of at least three organizers; K-W-L Chart (for assessing learning and helping pupils to understand key issues in a narrative text), Story Map (assisting pupils to identify literary elements in a narrative text) and Four-Corner Vocabulary Chart (for vocabulary development). Hence, teachers can now be trained and encouraged to use organizers to assist their pupils in comprehension. Besides, pupils should be encouraged to use organizers assessing their own learning, identify literary elements and improving their vocabulary. These are all thanks to the finding of this study.

Suggestions for Future Research

1. This study was delimited to Effutu Municipality, Ghana. Hence, I suggest that future investigators should consider conducting a comparable study in other regions or localities in Ghana.
2. This study concentrated on the use of K-W-L Charts, story map and Four-Corner Vocabulary Chart. it will be worthwhile if other researchers consider investigating the outcome other organisers have on the same independent variable, comprehension achievement.
3. This study paid attention to narrative texts and used two schools. It will be worthwhile if other researchers examine the effect of organizers on comprehension achievement of other forms of texts like expository and descriptive among others. Investigators should consider using more than two schools to make findings more generalizable.
4. In addition, other researchers can consider investigating private basic schools in the Effutu Municipality and other Municipalities for similar study.

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APPENDICES

Appendix A

"UNIVERSITY OF CAPE COAST

DEPARTMENT OF BASIC EDUCATION"

PRE-TEST

Cherished Learner,

"I am a student of the University of Cape Coast conducting research on the effect of graphic organizers on pupils' comprehension achievement in the Effutu Municipality. I humbly seek for your permission to participate in this study. The information you will provide shall be used for academic purpose only without revealing your identity. Please try your best to respond to all the questions."

DEMOGRAPHIC CHARACTERISTICS OF SUBJECT

Please complete the following by Ticking/writing the correct information about you.

GROUP IDENTIFICATION NUMBER: ……..

DATE: ……. CLASS: ……..

GENDER: Male ☐ Female ☐ AGE: ……

SECTION B

COMPREHENSION PASSAGE (20 marks)

"Instructions: Read the passage carefully and answer the questions that follow. The answers must be in sentence form."

BULLIES

"Kusi doesn't like going to school anymore. He is tired of being bullied. Some of the bigger boys at school are mean to him. They shove him to the ground. They hide his books. They call him names. They are bullies. When things get really bad, Kusi tells his mom he is sick."

""You should stay home and rest," "Mom says". "You'll feel better tomorrow." "Then Kusi gets to stay home. He reads books. He watches television. He eats what he wants. He is not scared". "You should tell someone you are getting bullied at school," says "Kusi's best friend, Sanful. But Kusi is scared. He doesn't want to tell an adult."

""That will make things worse, Sanful," says Kusi. "You don't go to my school. You have no idea how mean these guys can be." "You can't keep missing school," says Sanful. "Your grades will fall. You will be in trouble at home. And besides, you don't want to be in the basic four forever, do you?" "Kusi thinks Sanful is probably right. He will tell his mom about the bullies when she gets home from work tonight. He will see what happens."

"Answer the following questions by circling the correct option or writing the correct answer in the spaces provided".

"1. Why doesn't Kusi like going to school anymore?

A. The work is hard.

B. The pupils are mean.

C. His best friend does not go there.

D. He wants to read books at home."

"2. How might Kusi feel when the pupils at school are mean to him?

I. Angry

II. Scared

III. strong

A. I only

B. I and II

C. II and III

D. I, II, and III"

3. What class is Kusi in?

A. Basic seven

B. Basic five

C. Basic six

D. Basic four

"4. What do the mean pupils do to Kusi?

I. call him names

II. steal his money

III. hide his backpack

A. I only

B. I and II

C. II and III

D. I, II, and III"

"5. Who are the bullies in this story?

A. Kusi and Sanful

B. the gang members at Kusi's school

C. the teachers

D. the bigger boys at Kusi's school"

"6. Which of the following adjectives accurately describe Sanful?"

I. "shy

II. caring

III. helpful

A. I only

B. I and II

C. II and III

D. I, II, and III"

7. "Why hasn't Kusi's mom helped him?"

_____

_____

_____

_____

8. "Why doesn't Kusi tell his mom he is being bullied?"

_____

_____

_____

_____

9. "What does Kusi do when he stays home from school?"

_____

_____

_____

_____

"10. What is likely to happen if Kusi keeps missing school?"

_____

_____

_____

_____

_____

"11. When does Kusi plan to tell his mom about the bullies?"

_____

_____

_____

_____

12. "Who tells Kusi that he should tell someone about being bullied?"

_____

_____

_____

_____

13. "Who is the main character in the story?"

_____

_____

_____

14. "You should tell someone you are getting bullied at school." Who made that statement?

_____

_____

_____

15. Where did the Kusi and Sanful have their conversation?

_____

_____

_____

_____

16. What does it mean to be bullied?

_____

_____

_____

_____

17. Write other word or phrase that can replace "each of the following in the passage".

a. Mean: _____

b. Shove: _____

c. Scared: _____

d. An adult: _____

Appendix B

UNIVERSITY OF CAPE COAST

DEPARTMENT OF BASIC EDUCATION

POST-TEST

Cherished Learner,

"I am a student of the University of Cape Coast conducting research on the effect of graphic organizers on pupils' comprehension achievement in the Effutu Municipality. I humbly seek for your permission to participate in this study. The information you will provide shall be used for academic purpose only without revealing your identity. Please try your best to respond to all the questions."

SECTION A

DEMOGRAPHIC CHARACTERISTICS OF SUBJECT

Please complete the following by Ticking/writing the correct information about you.

GROUP IDENTIFICATION NUMBER: ……..

DATE: ……. CLASS: ……..

GENDER: Male ☐ Female ☐ AGE: ……..

SECTION B: COMPREHENSION PASSAGE (20 marks)

"Instructions: Read the passage carefully and answer the questions that follow. The answers must be in sentence form."

"The New School"

"Tracey is starting a new school today. She is very sad. She is very scared". "I don't want to go to school today," "Tracey tells her dad". "I understand, sweetheart," Dad says. "Starting a new school can be very scary." "Tracey has moved to a new town. She has moved to a new house. She is **starting** a new school today. She has done all of this in a week!"

"I feel sick," She says. "My stomach hurts. I can't eat breakfast." "I think that is because you are **nervous**," Dad says. "He **pats** Tracey's hair. He gives her a little hug". "Try drinking just a little juice. Then I will walk you to school." "Tracey and her dad walk to school. Tracey thinks about many things".

Will I make friends?

Will I like my teacher?

What if I don't know the answer to a question?

Will pupils laugh at me?

What if no one likes me?

"We're here," says Dad. Tracey looks up at the big building. "Her other school was small. Tracey wishes she could run away. She knows she cannot. She takes a deep breath. She walks up the steps to school. She walks into her Basic four classroom". "That must be Tracey," "she hears a boy say". "Hello, Tracey!" "Welcome, Tracey!" "Let me show you around." "Everyone seems kind. Tracey feels a little better".

"But she is still **not happy**. She is still a little scared. She cannot eat her lunch. Dad picks Tracey up after school". "How was your day?", Dad asks. "Okay," Tracey says. "It will get better," Dad says. "Big changes are hard." "I know," "says Tracey. **She reaches for her dad's hand** to hold as they walk home".

"Answer the following questions by circling the correct option or writing the correct answer in the spaces provided."

"1) Why is Tracey sad and scared?"

A. "She is moving to a new house today."

B. "She is moving to a new town today."

C. "She is starting a new school today".

D. "She is walking to school alone today."

"2) What has Tracey done during the week?

I. made a new friend

II. moved to a new town

III. moved to a new house

A. I only

B. I and II

C. II and III

D. I, II, and III"

3) What grade is Tracey in?

A. Basic three

B. Basic four

C. Basic five

D. Basic six

"4) Why can't Tracey eat breakfast?"

I. "She is nervous."

II. "Her stomach hurts".

III. "She is late for school."

A. "I only"

B. "I and II"

C. "II and III"

D. "I, II, and III"

5) Who thinks Tracey feels sick because she is nervous?

A. Her friends

B. Dad

C. Her mom

D. The headmistress

6) Why is Tracey starting a new school?

_____

_____

_____

_____

_____

7) "How do Tracey and Dad get to school?"

_____

_____

_____

_____

_____

8) When does Tracey seem to be brave?

_____

_____

_____

_____

"9) What is Tracey's new school like?"

_____

_____

_____

_____

_____

10) What was Tracey's wish when they got to the school?

_____

_____

_____

_____

11) She takes a deep breath. Why do you think Tracey took a deep breath?

_____

_____

_____

_____

_____

12) "That must be Tracey." Whose voice was that Tracey heard?_____

13) Apart from Tracey, mention two other characters.

1. _____

2. _____

14) Where did the story happen?_____

15) What does it mean to reach for someone's hand?

_____

_____

_____

16) Write other word or phrase that can replace "each of the following in the passage".

a. Nervous: _____

b. Starting: _____

c. Pats: _____

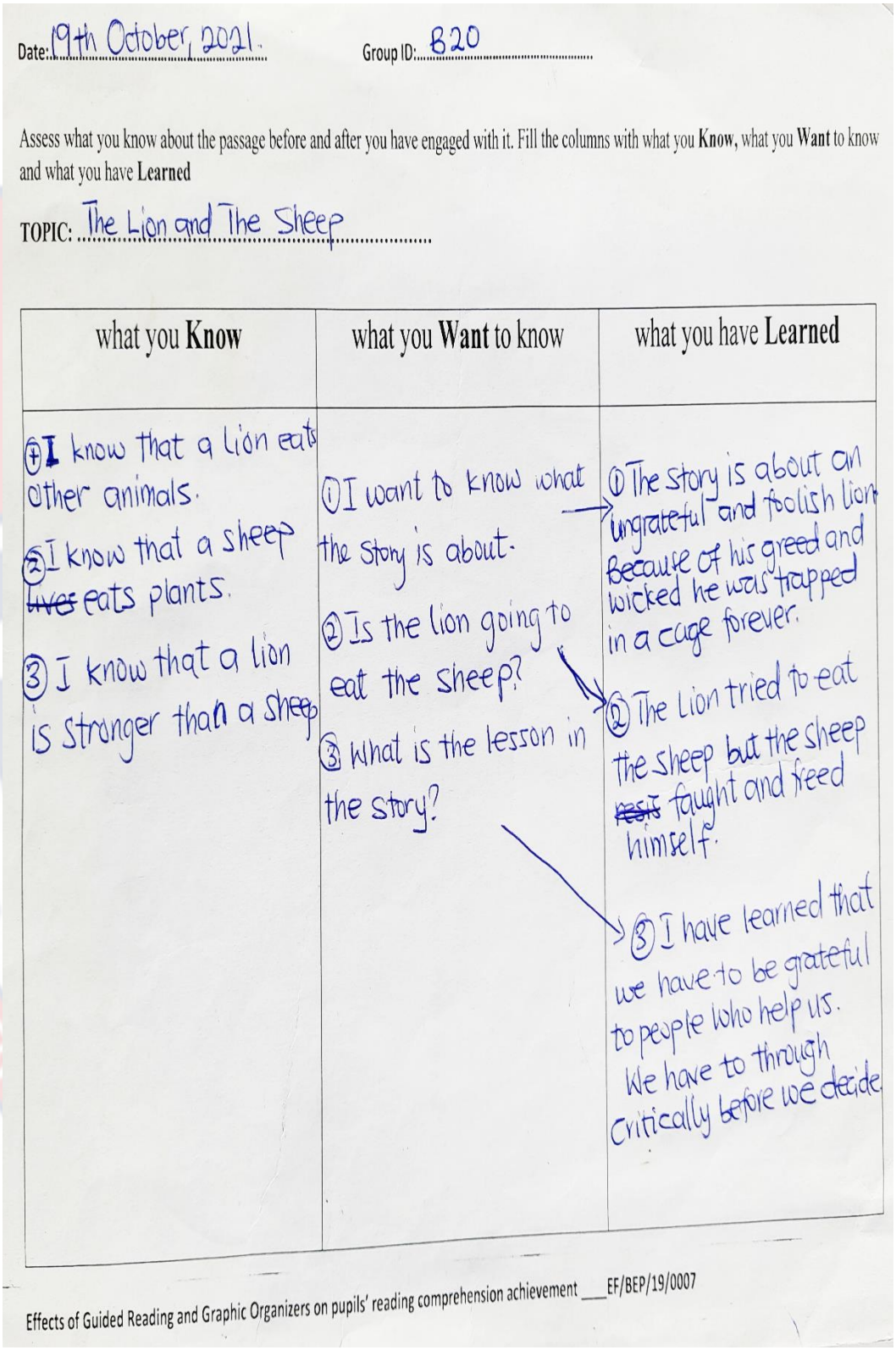
d. Not happy: _____"

Appendix C
Sample of Lesson

<table>
<tr><td colspan="3">THE LION AND THE SHEEP
Once upon a time, there lived the lion, the sheep and other animals such as tortoise, mouse, lizard and so on. One day, the lion got <u>trapped</u> in a cage. He tried all he could to get out but to no avail. He spent days in the cage without food and water. The sheep was going to the next town to get some green grass for her kids and saw lion in the cage. She passed by hurriedly, since every animal was afraid of the lion. But the lion <u>pleaded with</u> the sheep to open the cage so he could get out.
The sheep said," If I set you free you will eat me"
The lion pleaded and said, "Never will I be so ungrateful!
How will I eat someone who has helped me so greatly? I promise not to eat you when you offer me help."
The sheep believed the lion and opened the cage for him. When the lion came out, he pounced on the sheep.
Sheep shaking with fear, the sheep asked the Lion, "But you said you were not going to eat me; you promised."
The lion replied," Yes, but I'm <u>hungry</u>, I cannot let you go."
When the sheep managed to free himself, he ran as fast as he could to tell the other animals that the lion has been set loose. Luckily for the sheep, he met the other animals <u>resting</u> under a tree. He narrated the story to them. When the lion joined the other animals, they asked him to take them to the beginning of the whole story. They wanted to see how he was trapped and how hard the sheep worked to set him free.
The lion <u>agreed</u> and took them to the site. As the lion entered the cage to show them how he had been trapped, the other animals quickly pushed the latch of the door in place, and the lion was locked in the cage once more.</td></tr>
<tr><td colspan="2">Date: 19th October, 2021.
Time: 60 Minutes
Class: B4 Class size: 40</td><td>Subject: English Language
Strand: Reading
Sub Strand: Comprehension</td></tr>
<tr><td>Content Standard
B7.1.3.1: Articulate English speech sounds to develop confidence and skills in listening and speaking</td><td>Indicators:
B4.3.7.2.1.</td><td>Lesson 1</td></tr>
<tr><td colspan="2">Performance Standard:
- Pupils can read text and make inferences from it.
- Pupils can identify literary elements from text.
- Pupils determine contextual meaning of words or phrases.</td><td>Core Competencies:
Communication and Collaboration
Critical Thinking and Problem Solving
Personal Development and Leadership</td></tr>
<tr><td colspan="3">Key words: trapped, pleaded with, hungry, resting, agreed</td></tr>
<tr><td>Time</td><td>Learner activity</td><td>TLMs/Resources</td></tr>
<tr><td>Starter (preparing the brain for learning)
5 minutes</td><td>Germs live everywhere
Some are good and some are bad
Some roam in the air
Some grow on your food
Some can make you sick
Some can make you cough
If you wash your hand
You can get the germs off.</td><td></td></tr>
</table>

Main (new learning including assessment) 50 minutes	**Pre-Reading Stage: Activation of Schema** On the K-W-L chart given, pupils write what they **know** and what you **want to know** about a lion and a sheep. Pupils write what they think is going happen in the story. All these are written at the K-W columns of the K-W-L Chart. Pupils scan through the narrative to identify new words. Assist pupils to identify meaning of new words after they have learned the pronunciations. Pupils write word in the "Word" section, the meaning of the word in the "Synonym/meaning" section, uses word in sentence and draws a picture mimicking the word. (see sample in) **Reading Stage:** Pupils read text and identify setting, characters, problems and resolutions sing the Story Map. (see sample in) **Post Reading Stage** Pupils discuss the story in small groups. Pupils write what they have learned in the **Learned** column of the K-W-L Chart (see sample in) Facilitator assesses pupils' work. Randomly call pupils to answer questions related to the narrative.	K-W-L Chart Four-Courner Vocabulary Chart Story Map
Plenary/Reflections (Learner and teacher 5 minutes	**Learning Progress voting**: – Ask learners show by their fingers of 5 or 3 or 1 as to those who "really got it", "got some of it" or "didn't get it" respectively. **Home work (written)** Assign pupils to write their versions of the narrative as they follow the information on the graphic organizers.	

Appendix D



Date: 19th October, 2021. Group ID: B20

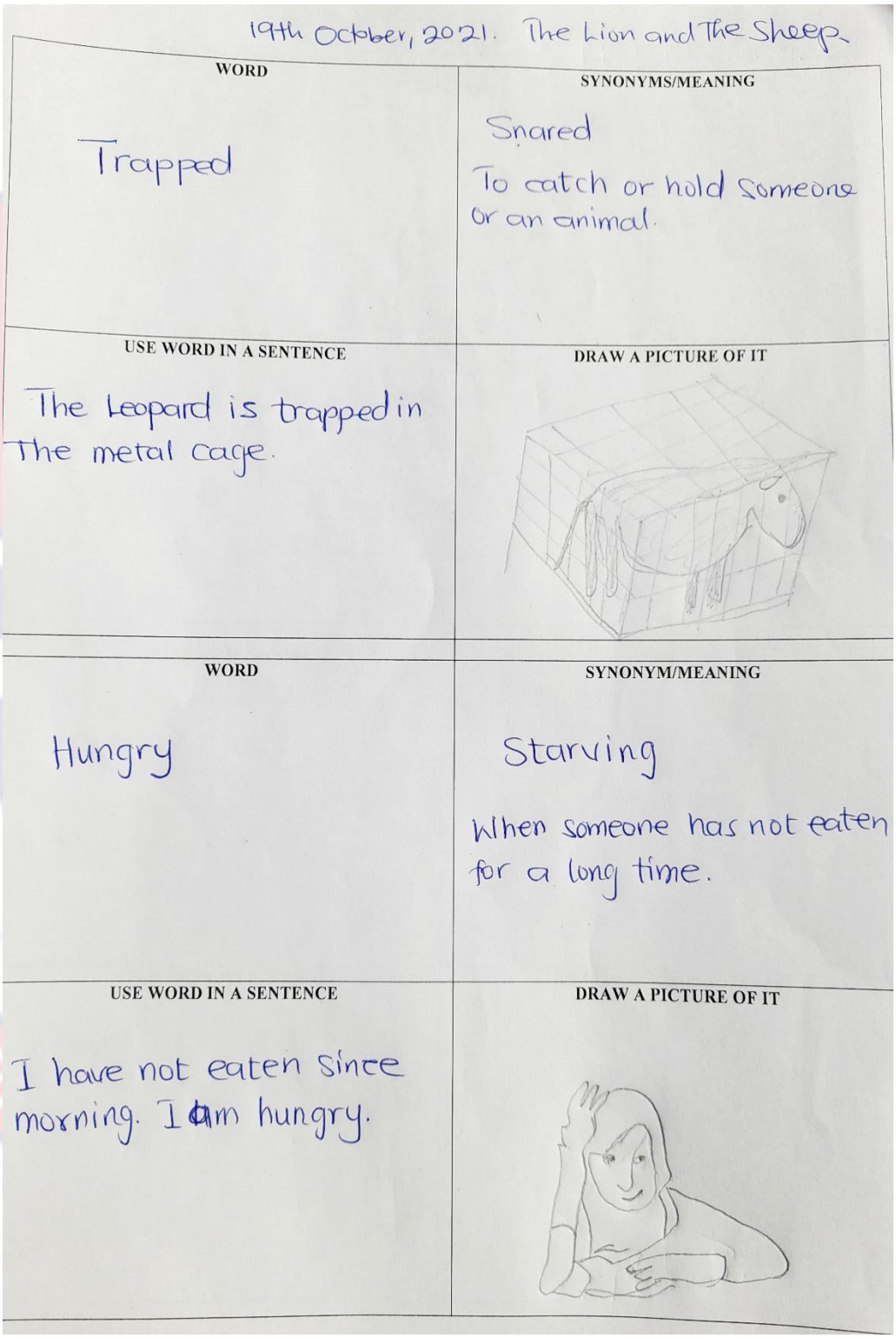
Assess what you know about the passage before and after you have engaged with it. Fill the columns with what you **Know**, what you **Want** to know and what you have **Learned**

TOPIC: The Lion and The Sheep

what you **Know**	what you **Want** to know	what you have **Learned**
①I know that a lion eats other animals. ②I know that a sheep ~~lives~~ eats plants. ③I know that a lion is stronger than a sheep	①I want to know what the story is about. ②Is the lion going to eat the sheep? ③What is the lesson in the story?	①The story is about an ungrateful and foolish lion. Because of his greed and wicked he was trapped in a cage forever. ②The Lion tried to eat the sheep but the sheep ~~resis~~ taught and freed himself. ③I have learned that we have to be grateful to people who help us. We have to through critically before we decide.

Effects of Guided Reading and Graphic Organizers on pupils' reading comprehension achievement ___EF/BEP/19/0007

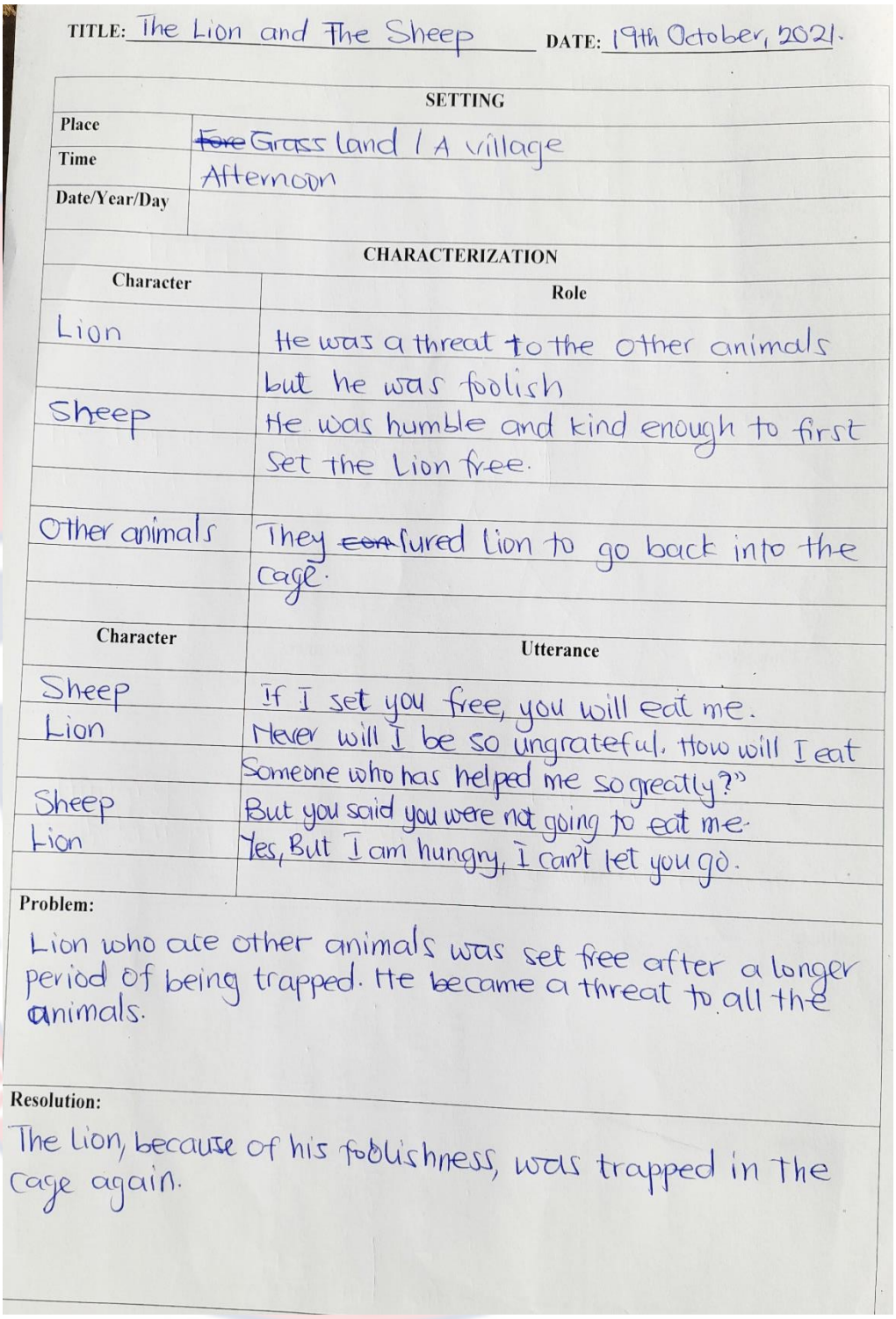
Appendix E



19th October, 2021. The Lion and The Sheep.

WORD	SYNONYMS/MEANING
Trapped	Snared To catch or hold someone or an animal.
USE WORD IN A SENTENCE	**DRAW A PICTURE OF IT**
The leopard is trapped in The metal cage.	
WORD	**SYNONYM/MEANING**
Hungry	Starving When someone has not eaten for a long time.
USE WORD IN A SENTENCE	**DRAW A PICTURE OF IT**
I have not eaten since morning. I am hungry.	

Appendix F



TITLE: The Lion and The Sheep DATE: 19th October, 2021.

SETTING	
Place	~~Fore~~ Grass land / A village
Time	Afternoon
Date/Year/Day	

CHARACTERIZATION

Character	Role
Lion	He was a threat to the other animals but he was foolish
Sheep	He was humble and kind enough to first set the Lion free.
Other animals	They ~~con~~lured Lion to go back into the cage.

Character	Utterance
Sheep	If I set you free, you will eat me.
Lion	Never will I be so ungrateful. How will I eat Someone who has helped me so greatly?"
Sheep	But you said you were not going to eat me.
Lion	Yes, But I am hungry, I can't let you go.

Problem:

Lion who ate other animals was set free after a longer period of being trapped. He became a threat to all the animals.

Resolution:

The Lion, because of his foolishness, was trapped in the cage again.

Appendix G

LETTER OF APPROVAL FROM GES

GHANA EDUCATION SERVICE

In case of reply the number and Date of this letter should be Quoted

REPUBLIC OF GHANA

MUNICIPAL EDUCATION OFFICE
POST OFFICE BOX 54
WINNEBA
TEL: 03323 22075
Email.geseffutu@gmail.com

My Ref. No: GES/CR/EMEOW/LC.80/VOL.5/68
Your Ref. No:.....

DATE: 18TH OCTOBER, 2021

LETTER OF INTRODUCTION

We acknowledge receipt of your letter dated 21st June, 2021 introducing a student to the Education Directorate for his research work.

Permission has been granted to Mr. John Darko Duah, an M.Phil student at the Department of Basic Education, University of Cape Coast to conduct a research in Effutu Municipality.

Mr. John Darko Duah is undertaking a study on ***"Effects of Guided Reading Accompanied By Graphic Organizers on Learners' Reading Comprehension Achievement"*** He is to collect data from selected schools in the Municipality.

Headteachers of Public Basic Schools are to assist him gather the relevant data for his work while ensuring that his research does not disrupt academic work in the schools.

MABEL JUDITH MICAH (MRS.)
MUNICIPAL DIRECTOR OF EDUCATION
EFFUTU-WINNEBA

✓THE HEAD OF DEPARTMENT
DEPT. OF BASIC EDUCATION
UNIVERSITY OF CAPE COAST
CAPE COAST

MR. JOHN DARKO DUAL
DEPT OF BASIC EDUCATION
UNIVERSITY OF CAPE COAST
CAPE COAST

cc: Headteachers
Public Basic School
Winneba

All SISOs
Effutu Municipality

VIM

Appendix H

INTRODUCTORY LETTER FROM BASIC EDUCATION DEPARTMENT

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
FACULTY OF EDUCATIONAL FOUNDATIONS
DEPARTMENT OF BASIC EDUCATION

Telephone: +233-(0)3321 33379
Cables: University, Cape Coast
Email: basiceducc@gmail.com

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: DBE/44/V.3/

21st June, 2021

Your Ref:

Dear Sir/Madam,

LETTER OF INTRODUCTION

This is to inform you that John Darko Duah **(EF/BEP/19/0007)** is an M.Phil student at the Department of Basic Education, University of Cape Coast.

He is undertaking a study on **"EFFECTS OF GUIDED READING ACCOMPANIED BY GRAPHIC ORGANIZERS ON LEARNERS' READING COMPREHENSION ACHIEVEMENT".** In connection with this, he needs to collect data.

The study is academic in purpose and data collected will be treated as confidential. We would therefore be grateful if you could give her the necessary assistance.

Thank you.

Yours faithfully,

Nana (Dr.) Aaron Osafo-Acquah
HEAD OF DEPARTMENT

DEPARTMENT OF BASIC EDUCATION
UNIVERSITY OF CAPE COAST
CAPE COAST

Appendix I

ETHICAL CLEARANCE FORM

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: CES-ERB/ucc.edu/vs-21-60

Date: 2nd July, 2021

Your Ref: .....

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

The bearer, Duah, John Darko, Reg. No. EF/BEP/9/0007 is M.Phil. / ~~Ph.D.~~ student in the Department of Basic Education in the College of Education Studi University of Cape Coast, Cape Coast, Ghana. He / ~~She~~ wishes to undertake a research study on the topic:

Effects of guided reading strategies accompanie by graphic organizers on learners' reading comprehension achievement.

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/~~her~~ proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/~~her~~ study. The ERB would be grateful if you would give him/~~her~~ the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,

Prof. Linda Dzama Forde
(Secretary, CES-ERB)

Chairman, CES-ERB
Prof. J. A. Omotosho
jomotosho@ucc.edu.gh
0243784739

Vice-Chairman, CES-ERB
Prof. K. Edjah
kedjah@ucc.edu.gh
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Secretary, CES-ERB
Prof. Linda Dzama Forde
lforde@ucc.edu.gh
0244786580