EFFECT OF PRE-READING ACTIVITIES ON ENGLISH LANGUAGE LEARNERS' PERFORMANCE IN READING COMPREHENSION TESTS IN SELECTED SECONDARY SCHOOLS IN KAKAMEGA CENTRAL SUBCOUNTY, KENYA

BY

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A Thesis Submitted to the School of Education, Department of Curriculum, Instruction and Educational Media in Partial Fulfilment of the Requirements for the Award of the Degree of Doctor of Philosophy in English Language Education

Moi University

2024

DECLARATION

Declaration by Candidate:

I declare that this thesis is my original work, and that it has not been presented before any panel for the award of a degree at any other university. No part of this thesis may be reproduced in any form or for whatever reason without prior permission of the author and/or Moi University.

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To the love of my life, Nancy and our beloved children; Lincoln, Louis and baby Keren, I proudly dedicate this work.

ACKNOWLEDGEMENTS

This work would not have been possible were it not for a number of benefactors whose support I cannot fail to mention.

First and foremost, I give all the glory and honour to the Almighty God for being too gracious and favourable to me. In spite of the long and tedious hours spent on this work, He gave me strength and good health to carry on.

I thank Moi University for giving me the opportunity to study for my Post Graduate Higher Degree at the institution.

I wish to sincerely appreciate my project supervisors and advisors, Prof. Peter Barasa and Prof. Carolyne Omulando, whose genuine, candid and honest scholarly comments about this study challenged and enabled me to reflect upon it, and improve on the ideas therein. Thank you for tirelessly reading and sharing new insights on this study. I pray that God grants you energy and long life to continue nurturing many more intellectuals to join and invigorate the community of language educators.

May I also appreciate my course lecturers including Prof. Mukwa, Prof. Ongeti, Prof. Barasa, Prof. Omulando and Prof. Chumba. Their professional opinions and guidance through the coursework and especially during presentations and discussions in the PhD classes opened an intellectual window in my mind to envision and problematize this study.

My classmates in the PhD English class were such a commendable team. Our lively discussions, academic engagements and team spirit made it possible for me to conceptualize the problem of the study. Last but not least, I appreciate the respondents

and institutions where the study was conducted. The success of this study will be associated with them.

ABSTRACT

Reading comprehension is an examinable skill in English language curriculum of Kenya. The skill is taught to enhance performance of learners in language reading tasks. Empirical findings revealed that learners' performance in reading comprehension tests remained below average. This requires appropriate instructional strategies such as pre-reading activities. However, no major study in Kenya has documented findings on effect of pre-reading activities on English Second Language (ESL) learners' performance. Therefore, the purpose of this study was to determine effect of pre-reading activities on reading comprehension performance of Kenyan learners. The objectives of this study were to: establish differences in the nature of teaching and learning processes between classrooms exposed to pre-teaching vocabulary and those that were not exposed to any pre-reading activities; examine differences in the nature of teaching and learning processes between classrooms exposed to brainstorming and those that were not exposed to any pre-reading activities; assess if there was a difference in performance of the reading test between learners that used pre-teaching vocabulary and those that used brainstorming; determine if pre-teaching vocabulary and brainstorming had a significant effect on performance in reading comprehension in selected schools in Kenya; and, determine which, between pre-teaching vocabulary and brainstorming, was the pre-reading activity with a more significant effect on performance of ESL learners in reading comprehension. The study adopted Ruddell and Ruddell's Reading Comprehension as a Socio-cognitive Processing model, and Goodman's Reading Comprehension as a Transactional-Socio-psycholinguistic model. Guided by pragmatic philosophical paradigm, the study adopted convergent parallel mixed methods design. Target population comprised of 14346 students and 700 teachers in 23 public secondary schools in Kakamega Central Sub County. Stratified and purposive sampling techniques were used to select 852 form (2) students and 21 language teachers from a sample size of 7 schools. Data was collected using structured observations of pre-teaching sessions, and researcher-made test. Qualitative data was analyzed thematically and presented as narrations. Quantitative data was analyzed using descriptive statistics, followed by inferential statistics using ANOVA at $P< 0.05$ and presented using ANOVA tables. Findings revealed differences in instructional processes between vocabulary pre-teaching and control classrooms. Differences were also found in nature of teaching and learning between brainstorming and control classrooms. The difference in performance between learners who used pre-teaching vocabulary (M = 10.21, SD = 4.429) and those who used brainstorming (M = 9.45, SD = 4.489) was negligible. At $p< .05$ level, both pre-teaching vocabulary [$F_{(2, 901)}$ = 11.562, P = .000] and brainstorming [$F_{(2, 901)}$ = 11.562, P = .020] had a significant effect on performance in reading comprehension tests. Then, neither pre-teaching vocabulary nor brainstorming [$F_{(2, 901)}$ = 11.562, P = .092] had a more significant effect on reading comprehension than the other. Based on the findings, the study concluded that pre-teaching vocabulary and brainstorming instructional activities had a significant effect on Kenyan learners' performance in reading comprehension tasks. The study recommends that language teachers embrace, plan and use vocabulary pre-teaching and brainstorming as instructional strategies for teaching reading comprehension; accord learners sufficient opportunities to use these pre-reading activities. Language resource materials such as course-books and guides should include vocabulary and brainstorming activities. This study advances research in English Language Teaching (ELT) by assessing the effect of pre-reading activities as instructional strategies on performance of English Second Language learners.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

ANOVA	-	Analysis of Variance
CBC	-	Competency Based Curriculum
CDE	-	County Director of Education
DV	-	Dependent Variable
EFL	-	English as a Foreign Language
ELs	-	English Learners
ELT	-	English Language Teaching
ESL	-	English as a Second Language
FAL	-	First Additional Language
FL	-	Foreign Language
HOD	-	Head of Department
HOS	-	Head of Subject
IV	-	Independent Variable
KCSE	-	Kenya Certificate of Secondary Education
KICD	-	Kenya Institute of Curriculum Development
KIE	-	Kenya Institute of Education
KNEC	-	Kenya National Examinations Council
KWHL	-	What students know; what students want to know; how students will find out; what students learned.
KWL	-	What students know; what they want to know; what they have learned
L1	-	First Language
L2	-	Second Language
MMR	-	Mixed Methods Research.

MOE	-	Ministry of Education
NCES	-	National Centre for Educational Statistics
NCLB	-	No Child Left Behind
PreP	-	Pre-reading Plan
SA	-	South Africa
SBPRT	-	Schema-based pre-reading tasks
SPSS	-	Statistical Package for Social Sciences
SQ3R	-	Survey, Question, Read, Recite and Review the text.
SRS	-	Simple Random Sampling
TA	-	Thematic Analysis
TPD	-	Teacher Professional Development
UNESCO	-	United Nations Educational Scientific and Cultural Organization
USDE	-	United States Department of Education

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

Pre-reading encompasses all the things that one does before one starts reading so as to increase his or her capacity to understand the material. In many cases, taking just a few minutes to learn more about what one is about to read can dramatically increase one's reading comprehension and retention. In this study, pre-reading activities were discussed as a pedagogical strategy in English Language Teaching (ELT). Teachers in most reading lessons include a pre-reading activity which is expected to provide a bridge of sorts between a reader's knowledge base and the text. Most lesson frameworks consider pre-reading a preparatory step in which purpose setting and concept development are primary goals.

The pre-reading activities are aimed at activating background knowledge. In essence, using pre-reading activities in an English Second Language (ESL) classroom reflects a tacit acceptance of the role of background knowledge and the importance of building and activating a reader's knowledge before reading to learn. This is imperative since literature shows that ESL learners have several linguistic challenges to surmount and need more assistance in order to achieve the desired linguistic and communicative competence. Such challenges include but are not limited to lack of vocabulary, lack of background knowledge and lack of reading purpose.

Available literature indicates that comprehension increases when teachers use strategies that focus on teaching vocabulary before beginning instruction. This study therefore sought to establish the effect of pre-reading activities, such as

vocabulary pre-teaching and brainstorming, on the performance of learners in reading comprehension tasks in the ESL classroom in selected schools in Kenya.

This chapter presents a detailed background to the study that would specify the variables under investigation and clarify the problem of the study. The theory underpinning the study and the philosophical paradigm were also developed from the background to the study. The research objectives, hypotheses and questions, as well as significance, purpose, assumptions, scope and limitations of the study, and operational definitions of terms used in the study are also presented in this chapter.

1.2 Background to the Study

In this section, the study gives a global overview of pre-reading as a pedagogical strategy, with a specific focus on pre-teaching vocabulary and brainstorming and incorporates aspects of planning for a reading lesson. The discussion is then cascaded or localized to the Kenyan context, highlighting the place of pre-reading activities in Kenya Secondary English syllabus. Finally, reading comprehension performance of secondary school learners in Kenya is highlighted, for purposes of contextualizing the study problem.

1.2.1 Pre-reading as a Pedagogical Strategy

This section discusses pre-reading activities from a pedagogical standpoint and not a content one.

The content areas are based on tasks in intensive and extensive reading (KIE, 2002). Pedagogically, pre-reading activities are used by teachers to stimulate and activate background knowledge with a view to enhance comprehension of a text. A distinction exists between pre-reading as a way of introducing a reading comprehension lesson

and reading comprehension itself as content. Martinez (2009, p. 49) posits that "The extent to which background knowledge affects reading has been widely explored in research on native speakers and on participants studying English as a foreign and as a second language. The results highlight that background knowledge has a prominent role in reading comprehension". Martinez adds that research is needed on how to improve reading comprehension from a pedagogical perspective. This section delves into this perspective with a specific, intensive focus on pre-teaching vocabulary and brainstorming as pedagogic strategies of introducing content for reading comprehension.

Pre-reading activities should be integrated into a "classroom ritual" which Wallace (1992) in de Sousa (2012, p.25) describes as "three-phase-framework" that constitutes activities which "precede presentation of the text, those that accompany it and those which follow it". These are pre-, while- and post-reading activities respectively. Aebersold and Field (1997, p.140) say that pre-reading activities focus on *introducing words*; post-reading activities emphasize *learning of these words*; but while- (or during) reading activities concentrate on *comprehension through a "content-to-vocabulary"* approach. Vasaprasad (1997) in Saricoban (2002) also suggests a three-phase approach to reading. This approach includes activities for pre-reading stage, for example, providing learners with predicting or guessing activities for the reading passage; reading stage, for example, guessing meaning of unfamiliar words; and, post-reading stage which includes learners integrating their reading skills with other language skills. Indeed, a majority of the secondary school English language course books and teachers' guides approved by the Ministry of Education (MOE) in Kenya have a provision for pre-reading tasks or activities. These activities range from vocabulary items, discussions, passwords, role-plays etcetera. The language teachers

should seize this opportunity to motivate and stimulate learners, using pre-reading activities for both intensive and extensive reading.

The perspective that ESL learners face and need to overcome various linguistic and communicative problems abounds. For instance, Gebhard in Athiemoolam and Kibui (2012, p.2) says that "in English as second language settings, there are fewer opportunities for learners to apply what they study in communicative situations outside classroom since the only comprehensible English some of these learners hear and read is in the classroom."

There are several pre-reading activities available for use by a language teacher in the ESL classroom. However, according to the scope of this study, only two pre-reading activities are assessed: pre-teaching vocabulary and brainstorming. Wallace (1992) in de Sousa (2012) identifies two types of pre-reading activities: those which consist of questions to which the reader is required to find the answer in the text and, tasks focused on preparing the reader for likely linguistic difficulties in the text. Pre-teaching vocabulary and brainstorming fall in the latter group since they have been found effective at activating prior or background knowledge. Hence, they enable readers to navigate through likely challenges to comprehending the text.

Gunning in Chandran and Shah (2019) notes that some of the reading problems for ESL learners include lack of reading process which means that the students do not know the processes that they go through during reading and tackling reading comprehension; lack of vocabulary which implies the students are not equipped with the needed list of vocabulary; lack of background knowledge as the students are not exposed to various life-related topics and do not have prior information about the topic; lack of reading purpose as they do not know the real reason of reading; and,

lack of reading strategies as students are not aware of the strategies related to reading skills. Kasim and Raisha (2017) add that EFL students' biggest linguistic problems in comprehending English texts were semantic problems due to a lack of vocabulary. Citing Zuhra (2015); Tartila et al. (2012), and Hall (2012), Meylana (2019) also notes that students face reading comprehension problems due to their inability to understand meaning of words in passages. Yet, as Morrow, Linda and Michael (2003) note, an effective comprehension and instructional programme includes vocabulary instruction, to enable readers understand the complex relationships specified by words in sentences, paragraphs and passages. Chowdhury and Ara (2021) point out that pre-teaching vocabulary is a technique employed by teachers to help their students create a vocabulary fluency for spontaneity and accuracy in understanding the text by making a connection between vocabulary and comprehension.

However, Pretorius and Klapwijk (2016) caution against the assumption that when learners experience difficulty with using reading as a tool for learning, then their comprehension problems are a product of limited language proficiency. This implies that lack of linguistic ability among ESL learners is a necessary factor but not sufficient to explain below average academic performance in reading tests. The study was premised on the assertion that pre-reading activities are critical in equipping learners with linguistic ability, and activating their background knowledge (schemata), thereby enhancing comprehension of text (reading comprehension passage). When reading comprehension is achieved, the reader (learner) should then be able to successfully handle comprehension tests that would be evidenced in the test scores (improved performance).

1.2.1.1 Pre-teaching Vocabulary

Pre-teaching vocabulary is one of the English Language Teaching (ELT) strategies that apply the schema theory. Schema Theory states that students process information by making connections to what they already know (Stott, 2001). Citing Delfi and Yamat (2017), Sutra and Tantra (2020) say that in reading, the readers need to combine information from the text and the background knowledge to get the meaning of words. Chowdhury and Ara (2021) state that while pre-teaching vocabulary, teachers introduce, explain, or define new words of a reading text to the students at the beginning of a comprehension task. Studies have indicated that comprehension increases when teachers use strategies that focus on teaching vocabulary before beginning instruction (Chowdhury & Ara, 2021; Connor and Lagares, 2007; Hall, 2004; Swanson, et al., 2015; Myers & Savage, 2005; McClanahan, 2009; McCollin et al., 2010; Minarik and Lintner, 2011). ESL teachers should devote themselves to identify and teach vocabulary that is relevant to the reading.

Coxhead (2021) in Chowdhury and Ara (2021) says that learners with improved vocabulary in English have high levels of proficiency in the language, which raises learners' morphological awareness on the one hand; and, learner autonomy and motivation on the other hand. Anderman (2020) in Chowdhury and Ara (2021) notes that learner motivation in their learning process guarantees higher achievements in learning.

Teachers can use many different strategies to teach vocabulary. For example, McCollin, et al. (2010) found that using graphic organizers and word maps increased comprehension. Connor and Lagares (2007) and Myers and Savage (2005) found that building new concepts with previous knowledge helped students improve their

comprehension. In this comprehension strategy, students circle words in a text that are unfamiliar to them. Teachers then use the circled terms to create student reviews in which the teacher relates the unknown words to students' unique backgrounds. The Schema Theory supports the importance of pre-teaching vocabulary by building on what students already know (Stott, 2001).

Furthermore, Swanson et al. (2015) found that focusing on short lists of five to seven words for each instructional unit was most effective in increasing student comprehension. According to Lewis, Walpole and McKenna (2014) the short lists must be chosen very carefully by the teacher. Swanson et al. (2015) found that this short list of words should be noted and discussed each day of the unit - incorporating both text and visuals - to facilitate students' understanding of each term. They also discovered that comprehension improved when group activities were incorporated around the vocabulary terms.

Hall (2004), like Myers and Savage (2005) and Lewis et al. (2014), supports the importance of teaching unfamiliar vocabulary first but their studies showed that comprehension increased the most when teachers used the semantic feature analysis. In this method, students work with the vocabulary terms after the teacher provides them with the definitions and a two- column sheet: one column containing the vocabulary words and the other one listing the ideas the students will encounter within the text. Then, the students need to predict relationships between the ideas in the text and the vocabulary term, based on the definition they received. The relationships may be positive, negative, or indifferent. While students read, they must confirm or correct their initial thoughts on the relationship, and make corrections when predictions are inaccurate (Hall, 2004).

Finally, student comprehension can increase by using mnemonic devices to teach unfamiliar vocabulary words. The study by Minarik and Lintner (2011, p. 54), showed that "vocabulary instruction using mnemonic devices was an effective practice for students struggling with reading or learning difficult vocabulary". They explained meaning of words using mnemonic devices where each letter represents a word that students need to know, such as CHESS to represent culture, human-environment interaction, economics, social structure and state building. McClanahan (2009) also discusses the importance of using mnemonic devices but uses them in a different way: instead of using the word to help remember the meaning, students use the word as a method to dissect new vocabulary. McCollin et al. (2010) posit that mnemonic devices are important in having students practice the new terms in conversation, hearing adults say the words, and being exposed to the unfamiliar vocabulary throughout a unit.

1.2.1.2 Brainstorming

Another possible way of stimulating reading comprehension is brainstorming. Citing Fernald and Nickolenko (1993), Tran (2014) states that brainstorming has been considered an effective method in teaching. Brainstorming is a pre-reading activity in which the teacher provides the keyword and then the students list or mention concepts and words which have associations with the keyword. Wallace (2003 p.91) notes that "This may take the form of giving the class a particular key word or key concept, or it may be a newspaper headline or book title". Three advantages of brainstorming are identified, thus: it requires little teacher preparation; allows learners considerable freedom to bring their own prior knowledge and opinions to bear on a particular issue and can involve a whole class (Wallace, 2003).

Osborn in Kirk and Spreckelmeyer (1993, p. 85) defined brainstorming technique as "An organized way to allow the mind to produce ideas without getting bogged down in trying to judge the value of those ideas at the same time". Brainstorming can be an effective activity in the teaching of English as a foreign language. Indeed, different scholars argue that brainstorming has utmost importance in the field of English language teaching. For instance, Dogan and Batdi (2021, pp. 547) note that brainstorming technique has effects on cognitive skills such as "making lessons attention-grabbing, developing critical thinking skills, providing meaningful learning, enabling one to look at things from different perspectives, reinforcing what's been learnt, providing retention in learning, ensuring recall and repetition of learning, keeping learners active in class, increasing academic achievement, enabling the generation of ideas based on daily experiences".

Mongeau and Morr (1999, p. 14) consider brainstorming as a "method of ideation", in which a group of language learners are motivated to generate a large number of ideas. Osborn (1953) and Feather (2004) in Tran (2014) discuss the principles and rules for using brainstorming techniques in teaching, which are still applied today. They include:

- Withhold criticism
- Go for quantity
- Combine and improve ideas
- Welcome wild ideas

These techniques allow learners to generate and express their ideas in a systematic way that in turn facilitate the learning process.

Brainstorming is helpful in the activation of readers' prior knowledge. Citing Yea (2019), Headley and Headley (2019) note that brainstorming is one of the many active learning techniques that can be used to break up lectures, engage students and enhance learning. Feather (2004, p.82) posits that "brainstorming provides plenty of materials for making prediction". This strategy also helps the reader to become conscious about what he knows concerning a certain topic in a text before he or she reads it. This scholar further argues thus, "brainstorming enhances the activation of the reader's schema globally; so that they will know in advance about the ideas, vocabulary, culture, grammatical features and genre structures which are most probably met in the text to be read" (Feather, 2004 p. 84). Richards (1990) argues that brainstorming is effective for achieving student interaction and development of the cognitive skills for generating ideas. A study by Labiod (2007) concludes that brainstorming activates prior knowledge, which enhances learners' reading comprehension.

In a brainstorming session a topic is presented and a discussion prompted for the purpose of stimulating relevant schemata amongst learners. This can help create expectations on what they are about to read and then see if their expectations were met. The English language teacher can explore the viability of the opportunities provided in the course books by means of pictures, titles, discussion tasks and even vocabulary to engage learners in relevant brainstorming sessions.

1.2.2 Reading Comprehension Performance of Learners in Kenya

It is in the public domain in Kenya that reading comprehension continues to be a challenge to learners. For instance, Muya in Athiemoolam and Kibui (2012) points out the general outcry by educationists, potential employers and ordinary citizens who

contend that most of the secondary school leavers and university graduates are not equipped with the skills in reading and writing in English. Yet, as Sadoski (2004) states, comprehension is pivotal to reading as it occupies the central place on the continuum where input from the print and the reader is in central balance.

Srisang and Everatt (2021) suggest that to successfully comprehend a reading text, several sufficient language components such as vocabulary, grammar knowledge, and background knowledge play vital roles in enhancing reading comprehension, particularly in a foreign language. Athiemoolam and Kibui (2012) opine that quite often, comprehension is difficult for second language readers because of cultural factors. Rasinski in Morrow, Linda and Michael (2003, p.10) observes that "the foundation for all instructional practice, regardless of one's theoretical or pragmatic orientation to reading, is the goal of improving reading achievement for all students. This study mainly investigated the effect of using pre-teaching vocabulary and brainstorming on the performance of ESL learners in reading comprehension tests. Besides, this study intended to determine which of the two pre-reading activities had a more significant effect on the performance of ESL learners in reading comprehension tasks.

A study by Gichaga (1986) on "The Factors that Influence Secondary School Learners' Performance in the English Language at Kenya Certificate of Secondary Examination level in Two Different Districts" showed that reading comprehension was amongst the major challenges to learners. Decades later, this concern has been replicated by Karanja (2015, p.54) in whose study "English teachers stated that poor academic performance of learners in reading comprehension was a result of poor reading abilities." To date, KNEC reports still indicate that learners were struggling to

improve reading comprehension outcomes in English KCSE examinations. This is demonstrated by the KCSE reports and the results analyses for Kakamega Central Sub County in Table 1.1.

Table 1.1: KCSE English Results Analysis

National Performance						Kakamega Central Sub County		
Year	Paper	Maximum Score	No. of candidates	Mean Score	Percentage Mean score	No. of candidates	Mean score	Percentage Mean Score
2016	1	60	**571644**	29.15	48.58%	**1937**		
	2	80		**20.39**	**25.49%**			
	3	60		18.52	30.86%			
	Overall	**200**		**68.06**	**34.03%**		3.5125	29.27%
2017	1	1	**610084**	25.89	43.30%	**2186**		
	2	2		**28.24**	**35.30%**			
	3	3		19.42	32.37%			
	overall	**200**		**73.55**	**36.78%**		3.9543	32.95%
2018	1	60	**659953**	29.15	48.58%	**2192**		
	2	80		**24.78**	**30.98%**			
	3	60		18.85	31.42%			
	Overall	**200**		**72.78**	**36.39%**		4.110	34.25%
2019	1	60	**697222**	29.00	48.00%	**2299**		
	2	80		**33.00**	**41.25%**			
	3	60		20.00	33.33%			
	Overall	**200**		**82.00**	**41.00%**		5.429	45.24%
2020	1	60	**743984**	25.38	42.30%	**2683**		
	2	80		**26.69**	**33.30%**			
	3	60		20.66	34.40%			
	Overall	**200**		**72.73**	**36.37%**		5.211	43.43%
2021	1	60	**822933**	24.66	41.10%	**3070**		
	2	80		**27.37**	**34.20%**			
	3	60		21.73	36.23%			
	Overall	**200**		**73.76**	**36.88%**		4.6980	39.15%
2022	1	60	**877773**	28.29	47.15%	**2957**		
	2	80		**27.67**	**34.59%**			
	3	60		19.94	33.23%			
	overall	**200**		**75.88**	**37.94%**		5.59	46.58%

Source: KCSE Reports (2016 - 2022); MOE, Kakamega Central Sub County (2022)

KCSE English Paper Two (101/2) largely comprises intensive and extensive reading as well as grammar; and, it carries 80 out the maximum 200 marks in the national English examination. The remainder of 120 marks are shared equally between Paper One (Listening and speaking/oral skills) and Paper Three (Writing skill). Nonetheless, candidates do a lot of intensive reading as they interact with prescribed texts in readiness for English Paper Three (101/3) examination. To perform well in Paper Two, the focus of this study, candidates need to master the ability to read and comprehend a text. With regard to grammar skills, which form part of English Paper Two (101/2), Clapman in Macaro (2003) says that students who score less than 60% in grammar tests can not apply top-down strategies. Reading comprehension tests in Kenya now integrate grammar with comprehension skills. It is not uncommon to find questions testing aspects of grammar developed from a given comprehension passage.

Reports on candidates' English performance in Kenya show that the candidates experience problems in questions testing on inference, vocabulary, set texts and generally questions on higher order skills (KNEC, 2015). KNEC (2017) notes that the overall performance in KCSE English examinations still falls short of the ideal mean of 100 (50%), calling for innovation in curriculum implementation. As for Paper 101/2, KNEC (2017, p. 2) observes that "an analysis of candidates' work revealed poor comprehension skills … (and specifically, for Question 1), it was noted that majority of candidates could not handle questions that tested higher order skills; they performed dismally in questions that required analysis, synthesis and evaluation." This problem was noticed in Kakamega Central Sub-County where the overall performance of students in English especially in the period running between 2016 and 2022 was also far much below the ideal mean. In an attempt to address this educational concern, this study intended to determine if the use of pre-reading

activities as a pedagogical strategy would be useful in reversing this unfortunate trend. This was done by investigating the effect of pre-teaching vocabulary and brainstorming on performance of Kenyan secondary school learners in reading comprehension tests.

In yet another study on Kenyan learners' proficiency in English based on reading comprehension and vocabulary, Athiemoolam and Kibui (2012, p. 3) observe that "in Kenya, there is a national concern for the problem encountered by children of all ages and levels of learning in comprehending written material." The findings of this study revealed that "Form Four Kenyan learners do not have a wide knowledge of the world and the English language, consequently the schemas they had to draw from was a limiting factor..." (Athiemoolam & Kibui, 2012, p. 3). The study concluded that Kenyan learners experience challenges when it comes to interpreting and applying reading comprehension and comprehension skills. Critical to the present study is Athiemoolam and Kibui's conclusion that:

> Some reading difficulties experienced by the learners within the context of (their) study could be attributed to problems external to the reader which could include a lack of background knowledge... Moreover, poor teaching can both initiate and perpetuate reading difficulties for learners. That means that teachers should use teaching methods that would improve their learners' predictive and interpretive skills relating to reading comprehension.

Athiemoolam and Kibui's study points to the need for a reading intervention program across all schools incorporating all the skills that are required.

In view of the studies by Gichaga (1986) and Athiemoolam and Kibui (2012) as well as KCSE English language results for schools in the Kakamega Central Sub County, the present study focused on the educational problem of learners' scores in comprehension examinations that were continually below the ideal mean of 50%. The

study explored whether the schema-based pre-reading activities, particularly pre-teaching vocabulary and brainstorming, in ESL classrooms in Kenya were a useful pedagogical intervention for enhancing performance in reading comprehension tests.

1.3 Statement of the Problem

Reading is one of the fundamental skills in language learning and all English as second language (ESL) learners need to acquire it in order to master the language (Chandran & Shah, 2019). Citing Dawkins (2017) and Vacca (2005), Srisang and Everatt (2021) note that reading comprehension can play an important role in determining a student's academic performance. Nurmaharaeni et al. (2022) affirm that if students have excellent reading comprehension skills, they will be able to deal with comprehension challenges. The ESL learners, however, face numerous problems that need effective strategies to overcome so as to improve reading comprehension. A number of causes for poor reading comprehension have been identified. They include lack of motivation, low and/or lack of prior or background knowledge as students are not exposed to life-related topics; poor or lack of vocabulary; lack of reading purpose as they do not know the real reason of reading; and, lack of reading strategies related to reading skills (Nanda, 2020; Chandran & Shah, 2019). These reading difficulties have adverse effects on reading comprehension for English as foreign language (EFL) learners such as decreasing students' learning achievement; inhibiting students' problem-solving skills; and inhibiting students' future studies and careers (Nanda, 2020). These problems undermine success of ESL leaners in reading comprehension.

To mitigate against reading problems, especially among English as Second Language Learners, appropriate reading strategies are required. Maingi (2015) found that knowledge of strategies and techniques was useful when engaging learners in reading;

and that teachers need to teach learners how to select strategies appropriate for different reading activities which could be used to facilitate reading comprehension. Kulo, Odundo & Kibui (2019) established a statistically significant relationship between interactive reading strategies and achievement in reading skills. Rasinski in Morrow, Linda and Michael (2003, p. 10) notes that "the foundation for all instructional practice, regardless of one's theoretical or pragmatic orientation to reading, is the goal of improving reading achievement for all students." Yusuf (2010) reiterates that the goal of teaching reading comprehension is to enhance achievement of educational and professional success. However, despite the effort put in teaching reading skills with the goal to enhance achievement for learners, the examination results in reading comprehension show that this skill continues to be a challenge for ESL learners in Kenya (Athiemoolam & Kibui, 2012). In fact, KNEC annual reports for English Paper Two (101/2) and KCSE English results analyses in Kakamega Central Sub County continue to reveal that learners' performance in English KCSE reading comprehension examinations is consistently below fifty percent (KNEC, 2016-2022; Kakamega County Education office, 2016-2022). This confirms the findings of Karanja (2015, p. 54) that "…poor academic performance was a result of poor reading abilities." Thus, "pupils are not attaining literacy skills necessary for successful learning, hence, low educational outcomes in the country" (Andima, 2014).

Therefore, this study identified a knowledge gap. There was need for an investigation to explain why the continued practice of teaching the reading skill with a goal of improving performance for learners in examinations was at variance with the actual scores of Kenyan secondary school learners in reading comprehension specifically, and the English subject in general. This study endeavoured to determine if the use of pre-reading as pedagogical strategies would address the gap. KIE (2002) now KICD

advocates for careful selection of reading materials and planning of pre-reading activities. Many studies (Yusuf, 2010; Carder, 2011; Athiemoolam & Kibui, 2012; Heshemian, Jam & Naraki, 2014; Srisang & Everatt, 2021; Sutra & Tantra, 2020; Unal, 2017) have also shown that pre-reading activities activate background knowledge hence comprehension of text. This study therefore sought to establish whether the use of pre-reading activities as pedagogical strategies caused a significant improvement in performance of comprehension tests among ESL learners in Kenya. The present study determined and compared the effect of pre-teaching vocabulary and brainstorming on reading comprehension achievement in ESL classrooms. The study would advance the body of knowledge on instructional strategies for English Language Teaching.

1.4 Purpose of the Study

The purpose of this study was to determine the effect of pre-reading activities on reading comprehension performance in English Second Language (ESL) classrooms within selected secondary schools in Kakamega Central Sub County in Kenya, using concurrent parallel mixed methods design.

1.5 Research Objectives

The study addressed two qualitative and three quantitative objectives, which were to:

1. Establish differences in the nature of teaching and learning processes in classrooms exposed to pre-teaching of vocabulary and those that were not exposed to any pre-reading activities.

2. Examine differences in the nature of teaching and learning processes in classrooms exposed to brainstorming and those that were not exposed to any pre-reading activities.

3. Assess if there was a difference in performance of the reading test between learners that used pre-teaching vocabulary and those that used brainstorming.

4. Determine if pre-teaching vocabulary and brainstorming had a significant effect on performance in reading comprehension.

5. Determine which, between pre-teaching vocabulary and brainstorming, was the pre-reading activity with a more significant effect on performance of ESL learners in reading comprehension.

1.6 Research Hypotheses and Questions

This study used hypotheses and questions to determine the statistical significance of quantitative data; and to collect qualitative data respectively.

1.6.1 Research Hypotheses

A hypothesis is defined as "a theoretical proposition which has some remote possibility of being tested statistically or indirectly" (King'oriah, 2004, p. 176). This study tested the following three null hypotheses:

H_{O1}: there is no statistically significant difference between the performance of learners exposed to pre-teaching vocabulary and those exposed to brainstorming;

H_{O2}: there is no statistically significant effect on the performance of ESL learners in reading comprehension when pre-teaching vocabulary and brainstorming are used as teaching strategies;

H_{O3}: there is no statistically significant difference in the effect of pre-teaching vocabulary and brainstorming on the performance of ESL learners in reading comprehension.

The significance or alpha level was set at 0.05, a value established by Fisher in 1925 and still relevant today.

1.6.2 Research Questions

The study sought to answer the following research questions:

1. In which ways do the teaching and learning processes in classrooms exposed to pre-teaching vocabulary and the classrooms that are not exposed to any pre-reading activities differ?

2. What differences are evidenced in the teaching and learning processes between classrooms that use brainstorming and those that do not use any pre-reading activities?

3. How different is the performance of ESL learners impacted when they use pre-teaching vocabulary and brainstorming in their language classrooms?

1.7 Significance of the Study

The findings of this study are expected to influence the field of language and literacy education, and specifically inform teaching of reading comprehension in secondary schools. According to Gathumbi (2005, p. 33), "literacy encompasses the ability to use and integrate the four basic language skills of listening, speaking, reading and writing in various contexts, which also include knowledge of grammar and vocabulary." Mengesha (2012, p.1) notes that "English (language) is a means to enhance one's educational development, to facilitate communication and to further enrich cognitive abilities of students …" Quoting Anderson & Pearson (2004), Dole et al (1991) and Nuttal, 1996), Mengesha observes further that "research on reading suggests that reading comprehension is one of the main purposes of EFL/ESL

teaching/learning." Therefore, this study on reading comprehension performance was significant.

Teaching of reading comprehension is such a challenging and daunting task for ESL/EFL teachers because it is an active process of constructing meaning from text (Durkin, 1993). The reading teacher therefore needs to adopt teaching methodologies to help him or her navigate the challenges of teaching reading comprehension. Such methodologies should be aligned to "the contemporary view of learning, (which is) that people construct new knowledge and understandings based on what they already know and believe" (Mukwa in Mwaka, Musamas and Nabwire, 2014, p.6). In so doing, pre-reading, while-reading and post-reading activities have been suggested (Cook, 1990). For purposes of this particular study, the focus was on pre-reading activities. Most reading lessons include a pre-reading activity which provides a bridge of sorts between a reader's knowledge base and the text (Tierney & Cunningham, 1980). The findings of this study were therefore necessary to reiterate to language practitioners the need to embrace the use of pre-reading activities in language classrooms for purposes of enhancing reading comprehension outcomes of the ESL learners.

In a framework to implement the competency-based curriculum (CBC) in Kenya, GoK (2017) identified seven core competencies to be achieved by every learner in basic education. They include: communication and collaboration; self-efficacy (self-belief/self-awareness/self-esteem/confidence/integrity); critical thinking and problem-solving (use of logic and evidence to arrive at conclusions); creativity and imagination (perceiving the world in new ways); citizenship (shared identities/values/beliefs - includes global citizenship); digital literacy (knowledge/skills and behaviour for

effective and safe use of digital content and devices); and, learning to learn (ability to pursue and persist in learning). At the secondary school level, English language and literary appreciation will be taught. Listening, speaking, reading, writing and grammar will be taught to develop communicative competence.

These core competencies in CBC are in tandem with the 21st century skills of problem-solving and decision making; creative and critical thinking; collaboration, communication and negotiation; intellectual curiosity and the ability to select, structure and evaluate information; and, the motivation to be independent and a life-long learner. Mukwa in Mwaka, Musamas and Nabwire (2014) suggests that great teachers should adopt new pedagogies that enhance learners' capacity to attain 21st century skills. This study involved assessing effect of pre-reading activities as pedagogical strategies on reading comprehension performance. Brainstorming and pre-teaching vocabulary are necessary in activating what learners already know, to construct new knowledge. These techniques foster creativity in learning environments (Dogan & Batdi, 2021). Creativity is indeed one of the key competencies in the 21st century education, hence the importance of this study.

Ngwacho (2019, p. 54) says that "improving the value and scope of education and redesigning its objectives to take cognizance of the significance of sustainable development should be the country's utmost priorities." According to the *sessional paper No 4* of 2012 on Reforming Education and Training in Kenya, a curriculum reform that would foster quality and sustainable development is recommended (Republic of Kenya, 2017). CBC is premised upon the need to achieve sustainable development (Ngwacho, 2019). In responding to the challenge of providing valuable education for sustainable development, Kenya is switching from objectives-based

curriculum to CBC in which "knowledge is constructed and not transmitted, and prior knowledge impacts on the learning process" (Ngwacho, 2019). Involving learners in pre-reading activities (such as vocabulary activities and brainstorming) instils in them competencies such as communication and collaboration; self-esteem and confidence; critical thinking and problem solving, competencies which are valuable for sustainable development. This study was therefore important because it sought to improve the quality of language instruction by using strategies that activate the learners' prior knowledge; and, instilling competencies necessary for sustainable development.

A report on the National Assessment of Educational Progress in the US (NCES, 2012) reveals that 24% of eighth graders and 33% of fourth graders tested below basic in reading skills in 2011. Further, on the International Assessment of Adult Competencies Literacy Scale (USDE, 2012), adults in the United States achieved on average literacy proficiency score of 270 on a scale of 0 to 500 - 3 points below the international average score of 273. These results could be indicative of a need to examine current practices in reading comprehension instruction. Locally, the KNEC reports on national English examinations (KNEC, 2016, 2017, 2018, 2019, 2020, 2021 and 2022) have consistently showed that learners perform dismally in questions on reading comprehension in the national examinations. This problem could be a result of learners' difficulties transmitted from primary school; or, as a consequence of teachers' inability "to perform a range of listening and speaking activities ... reading a range of books – both fiction and non-fiction; and doing a variety of writing..." (Barasa, 2005, p.28). Barasa further argues that "to perform these activities well student teachers require two types of competence, which Roy-Campell (1990) refers to as pedagogic competence and linguistic competence." This study intended to

determine the impact of using pre-teaching vocabulary and brainstorming, being pedagogic strategies, on performance of ESL learners in reading comprehension tasks in ESL classrooms. As such, the findings of this study were critical for language teacher education and development.

1.8 Justification of the Study

A research conducted by Gichaga (1986) on the factors that influence secondary school learners' performance in the English language at the Kenya Certificate of Secondary Examination (KCSE) level in two different districts showed that reading comprehension was amongst the major challenges to learners. More than two decades later, the problem seems not to have been overcome. Kenya National Examination Reports (KNEC, 2016, 2017, 2018, 2019, 2020, 2021, 2022) indicate that candidates consistently post a performance of below 50% percentage mean in the English subject overall, and specifically Paper 101/2. For example, candidates scored 25.49% (2016); 35.30% (2017); 30.98% (2018); 41.25% (2019); 33.30% (2020); 34.20% (2021); and 34.59 (2022) in 101/2. This state of affairs is replicated in the years before 2016.

English paper 101/2 largely covers intensive and extensive reading, as well as grammar and carries the bulk of marks in the English language examination. To perform well in this paper, candidates need to master reading comprehension skills. In the KNEC (2015) report for example, it was reported that most candidates could not handle questions that tested higher order skills. This is evidenced by the fact that in such questions the candidates lifted sentences which did not respond adequately to the questions. Comprehension questions based on set literary texts were performed poorly since candidates did not read the text well enough to place an extract in its immediate context (KNEC, 2015). A study of this kind, with the intent to establish a new

pedagogical strategy for teaching and learning reading comprehension so as to improve performance in reading tests or tasks was needed.

Anderson and Freebody in Mihara (2011) note that the most consistent finding in first language (L1) reading research has been the high correlation between pre-reading activities (vocabulary pre-teaching) and reading comprehension. De Sousa (2012) says that even with heterogeneous groups, pre-reading activities are valid in both L1 and L2 contexts. Appreciating the multicultural and multi-ethnic ESL classrooms in Kenya, this study would add to the existing body of knowledge by assessing the effect of two context-creating activities on comprehension: pre-teaching vocabulary and brainstorming.

Available literature has revealed studies (Anggraini, 2011; Hashemian, Bashir and Sahar, 2014; Sinambela, Manik and Pangaribuan, 2015; Wright, 1989) that assessed the effect of a single strategy such as pre-teaching vocabulary, use of (composite) pictures, SQ3R, KWL, semantic mapping and many others, on reading comprehension. August and Hakuta (1998) state that educators should focus on several key teaching principles rather than looking for one program that works for ELs. This is because using several different teaching techniques allows for differentiating instruction according to needs of students. A focus on more than one specific pre-reading activity (in this case, pre-teaching vocabulary and brainstorming) was useful for comparison and addressing possible differences among learners and styles of teaching. Indeed, the study findings would reveal whether one of the pre-reading activities has a more significant effect on the performance of Kenyan ESL learners in reading comprehension tests than the other.

The researcher has taught English across all classes at various secondary schools in Kenya; and, has prepared candidates for KCSE examinations and even marked standardized national English examinations for more than fourteen years. In so doing, the researcher's experience revealed that a majority of Kenyan students continually faced challenges at handling both intensive and extensive reading. This study acknowledged that the English examination in Kenya was largely dependent on reading comprehension. In recognizing that KIE (2002) syllabus recommends that language teachers should plan for the use of pre-reading activities in their reading classrooms, this study was necessary in reinforcing the pedagogical relevance of pre-teaching vocabulary and brainstorming in English Language Teaching (ELT).

1.9 Scope of the Study

In this section, a discussion on the scope of the study was provided. Wanjohi (2014) says that the scope of a study covers two central aspects: knowledge and geographical areas. The scope of this study covered the content areas by discussing independent and dependent variables. The methodology to be used was also discussed.

The reading process has three phases: pre-reading, during reading and after reading. In this particular study, the focus was on pre-reading activities being the IV, so as to determine if pre-teaching vocabulary and brainstorming had any significant effect on the performance of Kenyan ESL learners in reading comprehension tests (DV). The study purposively sampled 7 public schools, 852 students and 21 language teachers from a target population of 28 secondary schools; 14346 students and 700 teachers. Three language classrooms were used in each sampled school from which two experimental groups, and one control group were identified. Teachers were requested to use pre-teaching vocabulary in experimental group One; brainstorming in

experimental group Two; and, to teach without any pre-reading activities in the control group, during the reading comprehension lessons.

The study then compared the results of the experimental group One and control group; experimental group Two and control group, to establish the effect of each treatment on performance in reading comprehension, separately. Then, the researcher determined which of the two pre-reading activities had a more significant effect on performance in reading comprehension tasks. The study was conducted in Kakamega Central Sub County of Kakamega County, Kenya since the various categories of schools in Kenya were available in this study location.

The study only covered five objectives, thus: establish differences in the nature of teaching and learning processes in classrooms exposed to pre-teaching of vocabulary and those that were not exposed to any pre-reading activities; examine differences in the nature of teaching and learning processes in classrooms exposed to brainstorming and those that were not exposed to any pre-reading activities; assess if there was a difference in performance between learners that used brainstorming and those that used pre-teaching vocabulary; determine if pre-teaching vocabulary and brainstorming had a significant effect on performance in reading comprehension; and, compare the impact of pre-teaching vocabulary; and, brainstorming on achievement in reading comprehension so as to determine which of the two pre-reading activities had a more significant effect on performance of ESL learners in reading comprehension tasks.

The applicable theoretical framework was the schema theory, and specifically two models, namely: reading comprehension as a socio-cognitive processing by Ruddell and Ruddell (1994) and reading comprehension as a transactional-socio-

psycholinguistic processing by Goodman (1994). The study was placed in the pragmatic paradigm; quasi-experimental research design, and convergent parallel mixed methods. The unit of analysis were Form Two students in ESL classrooms. The study collected qualitative data using pre-teaching sessions and classroom observations; while quantitative data were collected using researcher-made comprehension test. Qualitative data analysis was done using qualitative content analysis and thematic analysis whilst Quantitative data was analyzed using one-way Analysis of Variance (ANOVA).

1.10 Limitations of the Study

Limitations of the study included the challenges or impediments faced by the researcher due to the nature of study topic, data collection or literature to be reviewed.

The findings, conclusions and recommendations of this study are based on the effect of two pre-reading activities on the performance of ESL learners in reading comprehension. One of the most important weaknesses in this study was that only one phase of the reading process was considered. Also, only two pre-reading activities were assessed in the study. In addition, the study determined the effect of pre-reading activities on ESL learners' performance based on one type of text: a reading comprehension passage. Yet, the secondary school language syllabus in Kenya describes text broadly as to encompass literary and non-literary reading materials such as novels, plays, short stories, poems, songs, narratives, riddles, proverbs, tongue twisters, puns, newspapers, magazines, readers etcetera. Then, most of the literature reviewed were derived from studies conducted in institutions outside Kenya, implying that there was little literature available locally, to inform this study. To manage this

situation, the study ensured that the selected global and regional literature sources portrayed a similar English-as-a-second-language usage in Kenya.

The findings of the study are generalizable only to the public schools in Kenya. This is because the study did not include private secondary schools. Also, the study used self-developed instruments, especially observation schedule and researcher-made comprehension test. To overcome the possibility of biasness, the researcher consulted experts in the field, as well as the supervisors.

The study was conducted Kakamega Central Sub-County, one of the twelve sub counties in Kakamega County. The choice and size of the study location posed concerns about ability to raise relevant samples to address research objectives and yield generalizable results. Though the location was just a small section of the larger Kenyan republic, the researcher ensured that the sampling processes yielded relevant samples that reflected the characteristics of the population of learners and schools in Kenya.

1.11 Assumptions of the Study

The study made the following key assumptions:

i.   Teachers in the selected schools actually taught reading comprehension and had the requisite pedagogical knowledge to creatively use the pre-teaching vocabulary and brainstorming guidelines given.

ii.   Learners in each respective school in the sample could actively engage in the selected pre-reading activities to elicit their prior knowledge on the topic to enhance their reading comprehension.

iii.   Teachers in the study would adhere to the guidelines for pre-teaching sessions in the experimental and control groups respectively; as well as administration of the reading comprehension test, to generate credible data for qualitative and quantitative content analysis.

1.12 Theoretical Framework

This study was underpinned by the schema theory. This theory was originally traced to the writings of the philosopher Immanuel Kant in the 18th Century in which he speaks of innate structures that organize our world. Bartlett developed the schema construct in the 1920s. According to Bartlett (1932) this theory posits that memory of discourse is not based on straight reproductions but is constructive. This constructive process uses information from the encountered discourse, together with knowledge from past experience related to the discourse at hand to build a mental representation.

This theory presents a number of tenets. First, the schema theory assumes that texts do not carry meaning in themselves, but rather, they (texts) only provide direction as to how readers should retrieve meaning from their own previously acquired knowledge. Then, the schemata of a reader are organized in a hierarchical manner with the most general at the top and the most specific at the bottom. In addition, comprehending a text is an interactive process between the reader's background knowledge and the text. Finally, reading comprehension operates in two directions: from bottom up to the top and top down. The bottom up process is activated by specific data from the text. There is also the top down to the bottom process. Here, the reader's background knowledge plays a significant role.

According to this theory, schemata represent knowledge about concepts: objects, situations, events, sequences of events, actions and sequences of actions. Even

personal experiences are a part of one's schema. Each and every new experience incorporates more information into one's schema. This theory also holds that people have schemata for virtually everything. This is important for reading comprehension because learners come into a reading comprehension class with already developed schemata (units of knowledge) about everything they experience. Schemata help people to theorize about reality. Such theories affect the way information is interpreted, and hence comprehension of a text. These theories keep changing as new information is received. The importance of schema theory to reading comprehension lies in how the reader uses schemata.

A majority of ESL classrooms in Kenya are multi-cultural, and multi-ethnic. So learners bring on board varied schemata that need to be harmonized for comprehension to occur effectively. This theory has evolved over time and developed into a number of models. Two constructivist models of reading comprehension that corresponded with the relativist ontological perspective adopted by the researcher basically informed this study.

1.12.1 Reading Comprehension as a Socio-cognitive Processing Model

This model was propounded by Ruddell and Ruddell in 1994. It holds that reading comprehension involves constructing meaning through negotiation. The reader, text, teacher and classroom community are all involved in the construction of meaning. It is noted that "the role of the classroom's social context and the influence of the teacher on the reader's meaning negotiation and construction are central to this model as it explores the notion that participants in literacy events form and reform meanings in a hermeneutic (interpretation) circle" (Ruddell and Ruddell, 1994, p.813). This model considers comprehension as a process that involves meaning negotiation

among text, readers, teachers and other members of the classroom community. It further holds that the schema for text meanings, academic tasks, sources of authority (which reside within the text, the reader, the teacher, the classroom community or some interaction of these), and the socio-cultural settings are all brought to the negotiation task. The teacher orchestrates the instructional setting since s/he is knowledgeable about teaching and learning strategies as well as the world.

1.12.2 Reading Comprehension as Transactional-Socio-Psycholinguistic Model

This model was propounded by Goodman in 1994. It holds that the text has no meaning in itself; it is the individual transactions between a reader and the text characteristics that result in meaning. This model holds the view that texts are constructed by authors to be comprehended by readers, and that the meaning is in the author and the reader. The text has a potential to evoke meaning but has no meaning in itself. The meaning is represented by a writer in a text and constructed from a text by a reader.

This study held that the ESL reading comprehension teacher must provide the student with appropriate schemata s/he lacked, and must also teach the student how to build bridges between existing knowledge and new knowledge. This is because the building of bridges between students' existing knowledge and new knowledge is needed for text comprehension. In this study, the reading material or comprehension passage was derived in accordance with the Form Two Secondary Education syllabus in Kenya, and the list of approved English language texts in the orange book. The teachers planned for pre-teaching sessions in their classrooms. These sessions involved vocabulary pre-teaching and language brainstorming activities. The control language classroom was not exposed to any pre-reading activities. The pre-reading activities in

the experimental language classrooms were based on the selected reading materials or texts, and were presumed to activate the learners' prior knowledge or schemata. With prior knowledge activated, the reading comprehension for the learners would be enhanced, hence significant achievement in the reading tasks. The classroom is a social context within which negotiations amongst learners or between learners and teachers (and/or reading materials) takes place with the aim of achieving reading comprehension.

1.13 Conceptual Framework

A conceptual framework is a structure which the researcher believes can best explain the natural progression of the phenomenon to be studied (Camp, 2001). According to Grant and Osanloo (2014) it is a picture or visual display of how ideas in a study relate to one another. This study considered the conceptual framework as a signpost that gives direction on how the study problem would be explored. It describes the relationship between the main concepts of the study. Miles and Huberman (1994) posit that conceptual frameworks can be in graphical or narrative form. This study highlighted both a graphical and narrative presentation of the key variables or constructs, indicating the presumed relationships between them. As opined by Liehr and Smith (2015) the conceptual framework enabled the study to present the asserted remedies to the defined problem in view of the stated research objectives, justification and assumptions of the study. The conceptual framework in this study was also elaborated or expounded by the schema theory adopted in this study.

The key independent variables included schemata-arousing language activities, socio-cultural contexts, reader and text characteristics. Meaning or comprehension derivation is two-fold. On the one hand, negotiations between schemata and the socio-

cultural contexts - teacher, reader, text and the classroom community results to construction of meaning or comprehension (Ruddell & Ruddell, 1994). On the other hand, the individual transactions between the reader and text characteristics results to meaning (Goodman, 1994). So, the negotiations and transactions are socio-cognitive and linguistic processes necessary for attainment of reading comprehension.

This study was anchored on the philosophy that the language classroom is a socio-psycholinguistic context in which a reading comprehension lesson proceeds interactively. At the pedagogical or methodological level, the teacher plans for and implements pre-reading activities, being the independent variable. For this study, pre-teaching vocabulary and brainstorming activities (specified in the pre-teaching guideline and pedagogical plans) are the specific independent variables. The teacher carefully selects activities for pre-teaching sessions that are related with the content in the actual reading comprehension passage for purposes of activating schemata of the ESL learners. The study aimed at demonstrating that when pre-reading activities are appropriately selected, planned and used in the language classroom, information stored in the reader's memory is activated.

When the activated background knowledge is found relevant or related to the new information in the passage or reading material, then above average language learner performance in reading comprehension (dependent variable) would certainly be realized. This comprehension is clearly measurable through significant scores (outcomes) in standardized or teacher-developed comprehension tests or comprehension exercises in the language classroom (tasks). However, the expected linear relationship between pre-reading activities (pre-teaching vocabulary and brainstorming) could be affected by extraneous variables such as individual

differences among language teachers and learners. Specifically, these extraneous variables included learning styles, instructional styles or strategies, motivation, gender and even type or status of school; and they were all built into the study. All these ideas and relationships between the variables of the study have been diagrammatically presented in Figure 1.1.

Independent Variables

Dependent Variable

PRE-READING ACTIVITIES:

- Schemata + Sociocultural Contexts [Negotiation] = Text Meaning/Comprehension
- Reader + Text characteristics [interaction] = Text Meaning/Comprehension

Pre-teaching vocabulary:

A. Pre-teaching guidelines:
o Identify key vocabulary; pre-test key vocabulary; present key vocabulary; practise key vocabulary

B. Pedagogical plan:
o Three-phase framework; Specify objective; time taken for lesson; evaluation of session.

Extraneous variables

Individual

Differences:

o Learning styles
o Instructional styles/strategies
o Learner motivation
o Gender
o School type

Brainstorming:

A. Pre-teaching guidelines:
o Generate questions; encourage discussion; set time limit; teacher's facilitation; organize ideas; eliminate irrelevancies; influence of discussions on prior knowledge.
B. Pedagogical plan:
o Three-phase framework; specify objective; Time taken for brainstorming session; Evaluation of session

LEARNER PERFORMANCE IN READING COMPREHENSION:

o Scores in reading tasks/tests

Figure 1.1: Conceptual Framework

1.14 Operational Definition of Key Terms

Background knowledge: Knowledge of the reader about the topic or related topics brought into the current reading session from previous experiences.

Brainstorming: A pre-reading activity in which a teacher assigns ESL learners a topic to discuss freely and does not judge their ideas.

Comprehension skills: Skills that facilitate comprehension of a text. They include recall, analysis, evaluation, synthesis and application.

Home Language Learner Personal characteristics: These are individual differences of learners in their first language which may come to bear on their ability to comprehend a second language.

Instructional Strategies: These are pedagogic or teaching techniques employed by a language teacher in the classroom.

Learner Performance: The scores of ESL learners in a reading comprehension test.

Learner Personal characteristics: Individual differences or learner idiosyncratic tendencies that characterize one particular learner as being different from the other.

Learning Styles: Manner of learning by ESL learners in the language classroom. This could be visual, auditory, kinesthetic, tactile, social, and solitary or a combination of them.

Literacy: Ability of ESL learners to read, comprehend and write assigned language tasks in the ESL classroom.

Motivated Learners:	Learners who readily get involved in learning activities in the language classroom. *Very highly motivated* learners, on average, have the interest and eagerly grab the opportunity to respond to the teacher's questions in class. On the contrary, learners with low motivation show disinterest in language classroom activities, are dull and must be pushed a bit to respond to questions in class
Non-standardized test:	A test or assignment prepared within the class setting, not by the National Examinations Council in Kenya.
Non-standardized reading comprehension passage:	Are passages used for comprehension exercises in the language classroom.
Pedagogy:	Strategies, methods and techniques used for conducting instruction in a reading comprehension classroom.
Pedagogic Plan:	A guide specifying aspects to be covered during the pre-teaching sessions in a reading comprehension classroom.
Philosophy of Teaching:	Beliefs, values, culture or tradition and environment that inform the decisions, choices and actions of a professional teacher.
Pre-reading:	It is the phase in a reading lesson that precedes the actual reading.
Pre-reading Activities:	The language tasks [in this case *pre-teaching vocabulary* and *brainstorming*] that a teacher and learners engage in as a pedagogical strategy, so as to link what learners already know about the subject being read and the text to be read.

Pre-teaching Guidelines: A tool adopted by the researcher for collecting data on pre-teaching sessions (Brainstorming and pre-teaching Vocabulary) in the language classroom.

Pre-teaching vocabulary: A pre-reading activity in which ESL learners are taught key words in a text or passage before reading the text.

Pre-teaching Session: The moment, before actual reading of a text, during which language teachers expose learners in the language classrooms to pre-reading activities

Reading Comprehension performance: The scores or results or achievement of learners (either separately or collectively as a class) in a reading comprehension test or classroom assignment.

Reading comprehension instruction: Teaching of reading skills to ESL learners to develop their abilities for comprehension of text.

Reading teacher: A language teacher tasked with the responsibility to teach ESL learners the reading skills in the language classroom.

Schemata: The cognitive elements in the reader's mind which contain his or her prior knowledge.

Schemata-arousing Language Activities: Activities which activate prior knowledge of the reader. For example, pre-teaching vocabulary and brainstorming.

Text: A passage or reading material read by ESL learners in the language classroom for comprehension purposes.

Text Characteristics: The structure or form of the reading material which entail orthography (words, sentences, paragraphs, punctuations) and semantic value.

1.15 Chapter Summary

The main focus of this chapter was to provide some background to the study so as to conceptualize the variables being studied; highlight the problem of the study; the hypotheses that would be tested; the theory that underpinned the study and the philosophical worldview in which the study was placed. The operational definitions of important terms used in the study were also provided. The next chapter would review detailed relevant literature to further clarify the relationship between the independent and dependent variables of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This study reviewed relevant literature from a variety of sources, such as written texts, published or unpublished theses on related studies, refereed journals, and even from information about the study variables from internet sources. In this chapter literature that was considered critical in understanding the nature and problem of this study was reviewed. First, the general notion of reading was discussed. In this case, an overview of the concept of reading, models of reading in ESL, purpose of reading, motivation for reading, reading as a product and process, and reading skills, strategies and activities were discussed. Second, the literature review zeroed to the ESL classroom in Kenya, being a multilingual and multicultural context; studies on literacy, and teacher preparation for literacy. Third, the concept of pre-reading, being the core of this study was defined. Then, phases of reading and pre-reading activities were explained, with a specific focus on pre-teaching vocabulary and brainstorming.

The fourth area of literature review was reading comprehension, which focused on the place of reading comprehension in Kenya Secondary School English syllabus; reading comprehension instruction; factors influencing reading comprehension instruction; reading comprehension and vocabulary instruction, good readers and reading comprehension; and the relationship between pre-reading activities and reading comprehension. Fifth, the place of schemata or prior knowledge in reading comprehension was discussed. Then, testing and performance of ESL learners in reading comprehension was reviewed, in which a tabulated comparison between national and Kakamega Central district was presented. Finally, a review of related studies was done before a summary of this chapter.

2.2 An Overview of Reading

Saricoban (2002, p. 2) says "reading is not only a receptive skill, but also an active one in that it primarily includes the cognitive abilities such as predicting and/or guessing". Due to its communicative value, there are a number of cognitive processes involved during reading. NCLB (2002) defines reading as a complex system of deriving meaning from print that requires all of the following: a) the skills and knowledge to understand how phonemes or speech sounds are connected to print; b) the ability to decode unfamiliar words; c) the ability to read fluently; d) sufficient background information and vocabulary to foster reading comprehension; e) the development of appropriate active strategies to construct meaning from print; and f) the development and maintenance of a motivation to read.

Gu (2003) says that reading is often referred to as the most important of the four skills for EFL learners as it enables students to gain exposure to the target language and receive valuable linguistic input to build up language proficiency. Richards and Renandya (2002) in Erten and Karakas (2007) observe that many foreign language students often have reading as one of their most important goals in their language learning experience and various pedagogical purposes served by written texts help reading receive this special focus.

Most students who struggle to read lack adequate decoding skills and the confidence to read the unrecognizable word. With inefficient decoding skills, they also have difficulty gaining knowledge of the word through surrounding contextual clues, which could assist in understanding necessary vocabulary (Saenz & Fuchs, 2002). Archer et al (2003) adds that understanding complex words is crucial for understanding the material and if the words cannot be read the material becomes unlearned. For

struggling secondary school readers, decoding, fluency and vocabulary continue to be a problem (Archer et al, 2003).

Reading is the most important skill in language learning. It is therefore essential for a learner who studies English as a foreign language to acquire reading ability (Eskey, 1979). Nunan (1993) defines reading as the matter of decoding a series of written symbols into their aural equivalents in the quest for making sense of the text. He refers to this process as a 'bottom –up' view of reading, which gradually develops as the reader continues to read. Millrood (2001) also describes reading as a visual and cognitive process aimed at extracting meaning from writing by understanding the written text, processing information and relating it to existing experience.

From these definitions, reading is a complex cognitive process that makes a written linguistic text comprehensible in order to communicate ideas (Khaghaninejad, Saadabadimotlagh & Kowsari, 2015). Complex as it may be, this study held that the goal for a reading activity was comprehension of the material being read. Therefore, relevant pre-reading activities that may activate prior knowledge of the content being read would suffice to mitigate the obscurity and complexity of the text. This would ideally enhance text comprehension, hence improved reading test outcomes.

2.2.1 Models of Reading in ESL

Early work in L2 reading assumed a rather passive, bottom-up view (Carrel, Devine & Eskey, 1988). This view asserts that readers need to analyze and synthesize different types of information such as the symbol system (sounds in oral languages and graphic shapes in written languages). Macaro (2003, p.120) says that "a bottom-up model conceptualizes reading essentially as a decoding of the text by the reader, a text which the writer has previously encoded". The implication of this view is two-

fold: first, meaning of text is entirely driven by the writer thus restrictive; the reader's role is to simply access that meaning through decoding the text. The second implication is that decoding of the surface text entails a visual focus on the identification of letters, noticing the combination of letters, recognition of words, establishing sentences through their syntactic structures. Incidentally, words are then associated with their semantic representations in the long-term memory, and sentences with their propositional units. The bottom-up models were spawned by word-recognition research (Macaro, 2003).

Macaro (2003, p.120) further observes that a top-down model conceptualizes that during reading process, "the meaning of a text is paramount and this is accessed by the reader sampling words and strings of words, and predicting and inferring the meaning underlying them". It is argued that the reader can only do this by activating prior semantic, pragmatic, syntactic and discourse knowledge. 'Clauses and sentences will trigger idea about the world in the reader's head which in turn will give rise to expectations of ideas that are likely to come next' (Macaro, 2003, p. 120).

Nuttal (1996) in de Sousa (2012) described the top-down model of reading as a 'psychological guessing game'. Goodman (1970) distinguishes between bottom-up and top-down processing. For bottom-up processing, readers first recognize a multiplicity of linguistic signals (letters, morphemes, syllables, words, phrases, grammatical cues, discourse markers etcetera) and use their linguistic data processing mechanisms to impose some sort of order on these signals. The said data processing requires sound knowledge of language. From perceived data, the reader selects the signals that make sense and cohere. The top-down processing is applied when using

previous knowledge because the reader moves from general knowledge and meanings to the specific ones of the text.

Eskey in Hinkel (2006) examines what he considers a strongly top-down bias in L2 reading pedagogy and neglect of learners' weak linguistic processing skills. This analysis by Eskey explains that L2 readers are fundamentally distinct from those who read in their L1 and that essential "knowledge of the language of the text" (Eskey, 1988, p.96) is required before learners can successfully process the L2 reading schema. The primacy of the bottom-up processing in L2 reading are similarly noted by Paran, Birch and Koda in Hinkel (2006), who now view the top-down reading skills as additive or compensatory once fluent bottom-up processing is achieved. Applied linguists have now combined these two models and yielded a new hybrid model known as the interactive model. This new model combines both the top-down and bottom-up strategies for deriving meaning. Brown (2001) vouches for a combination of the top-down and bottom-up processing. This is because it is almost a primary ingredient in successful teaching methodology because both processes are important (Brown, 2001). Nuttall (1996) says that in practice, a reader continually shifts from one focus to another, initially adopting a top-down approach to predict probable meaning, then moving on to check whether that is really what the writer says.

Reading has now become a process that allows for the fact that meaning does not reside in the text alone but is a co-construction of the writer's text and the reader's interpretation. The interactive model is the primary compensation strategy when problems of access occur. This is particularly essential for the L2 reader who may have vocabulary or syntactic deficiencies and therefore will have to draw on his or her

contextual (world) knowledge in order to infer the meaning of the unknown word or phrase.

2.2.2 The Purpose of Reading

Reading purpose is defined as the reasons behind an individual's act of reading (Squires, 2014). Thomas (2001) in Squires (2014) classifies reading purpose into four: to be entertained, to understand life, to understand oneself and to understand others. Linderholm (2006) in Squires (2014) emphasizes that reading purpose has been established in academic literature as a determining factor in achieving certain measures of reading success. Further, Linderholm, Cong, and Zhao (2008) in Squires (2014) posit that significant findings have established the importance of reading purpose to comprehension and reading success. These scholars argue that "when individuals are cognizant of their reading purpose, they use different skills and tap into different resources in order to achieve their goals" (Squires, 2014, p. 30).

Since reading comprehension is one of the main purposes of ESL teaching and learning, this study argues that secondary school learners in ESL classrooms should be exposed to reading texts with the goal of testing them to establish their comprehension levels. The assumption is that those who do not post impressive scores in a reading comprehension test or assignment lack basic reading skills and therefore necessary remedies would be needed to help them improve. One such remedy, according to this study, was to embrace and intensify the use of pre-reading activities in ESL classrooms so as to activate learners' background knowledge.

2.2.3 Motivation for Reading

What motivates learners to read? AEE (2004b) suggests that in order to get students to read and enjoy reading, motivation is the first component for a successful literacy

programme. Motivation becomes a key factor for students in middle school and high school. Learners should be motivated to want to read. Teachers and educators should bear the idea that reading is a useful way of gaining knowledge for things that may interest the student. A co-operative reading environment is a factor that increases motivation to read. Such an environment promotes discussion and socialization with classmates (AEE, 2004b).

2.2.4 Reading as a Product and a Process

There are two main outlooks on reading (Ajideh, 2003). The first, a product-oriented approach to reading, assumes that meaning exists in the text itself, and it is text-based factors that determine meaning. In this view, pre-reading activities rely mostly on clarifying the meaning of difficult words or complex structures. For the second outlook, the process-oriented approach to reading; meaning is obtained through a successful interaction between the reader and the text.

Accordingly, background knowledge will be of primary importance for ESL readers, and schema-based pre-reading activities should be used for activating and constructing such background knowledge (Ajideh, 2003). This study considered both approaches since lexis and/or grammar structures used in a text as well as readers' background knowledge are critical in comprehending the text. This study considered the pre-reading activities that help the reader recall prior information related to the linguistic and other useful comprehension aspects of the text being read. The effect of the pre-reading activities on reading comprehension outcomes in the language classrooms in Kenya was then be determined.

2.2.5 Reading Skills and Strategies

The difference between these concepts of reading may be confusing. However, a detailed description of each aspect in the following discussion would help comprehend the distinction between them clearly.

2.2.5.1 Reading Skills

Ayot (1984, p.62) notes that "… English is in danger of becoming stereotyped extended exercises in examination rehearsal, rather than what it ought to be – a systematic treatment of defined communication objectives in English". Ayot (1984) artificially divides the reading programme in Secondary schools into three areas: Intensive reading skills, applied reading skills and extensive reading.

a) Intensive Reading Skills

They have been called skills of 'reading the lines, reading between the lines, and reading beyond the lines' (Ayot, 1984). The first two together with applied reading skills (access skills, skimming, scanning etc.) are necessary not just for comprehension but for summary writing and note making as well.

Reading the lines or plain sense reading: it is a skill of reading and understanding the plain sense of what is written. It may be simple or complex; and, may involve both recognition and recall.

Reading between the lines or deductive reading. It involves drawing valid inferences from what is written, or making deductions. It is reading for implied meaning. The above two skills which are also known as reading attack skills or cognitive reading skills may be applied at the levels of lexis, phrase, sentence, inter-sentential relationships, paragraph, and even the text level.

Reading beyond the lines or projective reading. The readers relate the text to their own values, imagination, knowledge and experience. The questions which teachers use to train learners on this skill should enable the readers (learners) to build bridges between the text and their own experiences. The readers should project their imagination into situations suggested by the text, and make personal judgements.

Ayot (1984) recommends that these skills need to be trained by means of questions suitably framed by teachers; and, that the teachers should be aware of which skills are being trained or tested by a given question. It is noteworthy that only skills *i)* and *ii)* above are tested in most reading comprehension examinations. It should be possible to design plain sense or deductive questions, the answers to which are broadly agreeable to examiners. It is however, important for teachers to develop the learners' capacity to make personal judgments about what they read. So, questions that train projective reading should not be neglected. Learners should be taught about how to make logical inferences as well as personal value judgements (Ayot, 1984). In this study, learners will be given questions for brainstorming to determine effect of this activity (brainstorming) on reading comprehension performance.

b) Applied Reading Skills

These skills include access skills, reading for gist, reading for information, reading for study, and reading faster. Ayot (1984) observes that these skills are often neglected not only in the English lesson, but also right across the curriculum, yet they are very important. They are discussed below:

Access Skills: They include how to locate books in a library; how to use reference books, including encyclopaedias, atlases, dictionaries etcetera; and how to find one's

way around a book by using the contents page, the index, appendices, glossaries, etc. It is important that students learn these skills.

Skimming, or reading for gist: It is quick reading of a text in order to get an overview of what the writer is saying (the gist of the matter). The reader is more interested in gaining an overall idea of a passage, chapter, article etc.

Scanning, or reading for specific information: It is the searching of a text for specific information which the reader knows (or suspects) to be there. The eye and brain can be trained and practised in quickly locating information.

Reading faster: Students should learn to read faster. Reading slowly is a handicap not only in English, but also in all their other subjects too. Slow reading by students may be caused by lack of practice. Therefore, students need to read widely, and especially books of their choice. Teachers may also be responsible for the students slow reading habits. During the classroom reading activities, the learners are virtually encouraged to read slowly; the nit-picking questions by teachers during intensive reading lessons sometimes slows the momentum in the classroom, thus reinforcing bad reading habits (Ayot, 1984).

Critical reading: It is a skill that is more important at higher school levels than the lower levels. Nonetheless, learners should be made aware of a writer's arguments and standpoints, the validity of such arguments etc., even if it is only in the editorials of daily newspapers (Ayot, 1984). Students need to become discerning in what they read, which is useful not just for literature texts.

c) Extensive Reading Skills

These involve reading widely. Ayot (1984, p.68) says, "The more widely a person is exposed to the written word, the more efficiently will he deal with it". KIE (2006, p.68) states that "in extensive reading, learners read a variety of literary and non-literary materials on as many different subjects as possible". Extensive reading is a key for students to gain in reading ability, linguistic competence, vocabulary, spelling and writing (Krashen, 1993). Krashen adds that instructional programs in readings should give a strong consideration to the teaching of extensive reading. Green and Oxford (1995) say that reading for pleasure and reading without looking up all the unknown words were both highly correlated with overall language proficiency. The learners have the opportunity to enjoy reading through extensive reading. It is covered through reading of materials such as newspapers, novels, journals, plays, periodicals, short stories, magazines, anthologies of poems, newsletters etcetera. For this study, extensive and intensive reading provide a stock of schemata or background knowledge which could be activated to enhance reading comprehension.

2.2.5.2 Reading Strategies

Reading plays an important role in any educational system; so, improvement of reading skills is vital, which is possible with the help of effective reading strategies (Unal, 2017). McNamara (2012) in Unal (2017) defines a reading comprehension strategy as a cognitive or behavioural action enacted in particular contexts, with a goal of improving some aspect of comprehension. For Edge (2002) in Unal (2017, pp. 140), reading comprehension strategies "encourage students to use prior knowledge, experiences, careful thought, and evaluation to help them decide how to practically apply what they know to all reading situations." McNamara (2009) in Unal (2017)

further points out that to overcome reading problems and becoming a better reader and comprehender, strategies are essential.

Reading strategies are considered one of the features of cognitive psychology which are essential for a successful comprehension (Zare, 2012; May, 2001; Walker, 2000). There is a plethora of studies reported on reading strategies and its effects on learners' reading comprehension (Khodadaly & Khaghaninegal, 2012; Khaghaninegal & Kaashef, 2014). Saricoban (2002, p. 3) notes that "Although the studies on developing reading strategies are many in number in the ESL context, there are relatively few studies conducted specifically on the three phases of instruction in EFL context". This scholar proposes that ESL learners should be trained on strategies of developing reading skills; and that these strategies should encompass students' background knowledge at the pre-reading stage to help the students at predicting or guessing. This will enhance transition of the learners into reading and post-reading stages.

In a study by Maingi (2015) it was found that knowledge of strategies and techniques was useful when engaging learners in reading; it was therefore the responsibility of the teachers to teach learners to select strategies appropriate for different reading activities which can be used to facilitate reading comprehension. Cohen (1990) views reading strategies as mental processes that readers consciously select to use to complete reading tasks successfully. Janzen (2003) says reading strategies are plans and behaviours for solving problems faced when constructing meaning. He adds that these strategies range from bottom-up strategies to more comprehensive ones like top-down strategies. Bottom-up strategies involve understanding of the text by analyzing the words and sentences in the text itself, or looking up for unfamiliar words in the dictionary. The top-down strategies on the other hand, make use of the previous

knowledge such as connecting what is being read to the reader's background knowledge (Janzen, 2003).

Other strategies include evaluating, asking questions, checking for answers, making predictions, summarizing, paraphrasing and translating. Baier (2005) notes that the use of games and other study methods improved vocabulary knowledge, and hence reading comprehension and reading levels. The present study focused specifically on the effect of pre-reading activities – considered as a link or bridge between what is being read and prior or background knowledge, on reading comprehension outcomes in the language classroom. Just like reading strategies that may be taught to make the readers effective, this study asserted that the teachers need to plan for and engage ESL learners in pre- reading activities to enhance these learners' comprehension capacity and, subsequently, their reading comprehension scores.

2.3 Teaching English in ESL Classrooms

English is both a medium of instruction and a subject in the Kenyan school curriculum. As an instructional medium, the English language serves a host of other subjects that are taught in English. Learners in Kenya are taught English as a second language (ESL), meaning that the students are introduced to English in schools when they have already acquired proficiency in their native, ethnic languages.

2.3.1 Teaching English in Kenya: A view of the Multilingual and Multicultural Context

Athiemoolam and Kibui (2012, p. 1) observe thus:

> Kenya is a highly diverse, multi-ethnic country comprising Africans and Asians who speak various mother tongues, Europeans of different nationalities, Arabs and other nationalities that come from diverse linguistic backgrounds (Kenyan Central Bureau of Statistics 1999). The African languages are traditionally regarded as belonging

> to four major linguistic groups which are; Bantu (for example, Gikuyu, Akamba, Luhya), Para-Nilotic (for example, Nandi, Kipsigis, Maasai), Cushitic (for example, Orma, Somali, Galla), and Nilotic (for example Luo). Besides the respective mother tongues of the population, Kiswahili is a common lingua franca, whilst English is the medium of instruction in primary school from grade 6, secondary and tertiary institutions.

Comparing the place of Kiswahili and English which are key language subjects in Kenya's official curriculum, these authors state that Kiswahili enjoys many opportunities and resources to be taught both in and outside school; therefore, the learners do not encounter problems mastering the language. On the other hand, students experience more complex challenges in terms of learning and mastery of English. This is because the classroom is the only environment where the learner can hear and attempt to speak English. Gebhard in Athiemoolam and Kibui (2012, p.2) posits that "in English as second language settings there are fewer opportunities for learners to apply what they study to communicative situations outside the classroom since the only comprehensible English some of these learners hear and read is in the classroom."

Barasa (2005, p. 3) observes that "Kenya's people are of diverse ethnic origin. The vast majority of the population is African, with a small number of Asians, Europeans and Arabs." So, there are many native languages spoken in Kenya. This includes the use of sheng, which Barasa (2005, p. 3) describes thus, "The latest addition to the Kenyan linguistic scene is sheng (slang coined out of Kiswahili/English/other Kenyan languages)." Despite the diversity of languages and cultures in the ESL classrooms in Kenya, English being a medium of instruction has a critical responsibility as it "facilitates the needed mobility for students among the different provinces" (Barasa 2005, p. 12). English is also important in this multicultural context for instrumental

and operational purposes – for ESL learners "to be able to read books in the new language, (and) to be able to communicate with other speakers of that language" (Broughton et al. 1993, p. 5).

The present study observed that the multilingual and multicultural context realised at the macro level of the Kenyan society is highly likely to be replicated at the micro level of the Kenyan ESL language classrooms. Due to this scenario in the language classrooms, English Language Learners (ELLs) are most probably going to suffer a myriad of challenges with regard to reading comprehension.

2.3.2 Studies on Literacy

Espin and Deno in Cimmiyotti (2013) found out that a relationship exists between basic reading literacy and student academic success. Their study that involved 121 tenth grade students was based on the connection between a student's reading measure and that student's score from a classroom study task, grade point average, and achievement test results.

Referring to studies in literacy, Morrow et al (2003) notes that "Numerous studies have found a positive relationship between reading achievement in early childhood and continued academic success (Adams, 1990; Foorman, Francis, Fletcher, Schatschneider & Mehta, 1998). In a longitudinal study, Juel (1988) found out that a child who is having difficulty reading at the end of first grade has a .88 probability of still having the difficulty in the fourth grade. It is apparent, based on this research and other similar investigations that it is crucial to have a good beginning when learning to read, because it can and probably would affect the rest of one's life. (Snow, Burns & Griffin, 1998).

Snow et al (1998) note that the best defence against failure to learn to read fluently is excellent instruction from an exemplary teacher. Morrow et al (2003) say that investigations into exemplary and effective practice in early literacy instruction captures a number of dimensions that describe teaching excellence. Exemplary and effective teachers:

a) use varied teaching strategies;

b) have high expectations for student achievement;

c) provide instruction designed to meet individual needs;

d) provide extensive positive feedback to students;

e) Treat children with respect;

f) use variety of structures to meet individual needs when teaching, such as whole group, small group and one-on-one instruction;

g) provide opportunities for children to work independently and also in collaboration with peers;

h) have excellent organization and management skills;

i) use many assessment tools to guide instruction;

j) seek professional development of their own;

k) Include parents in their programme; and,

l) collaborate with peers (Morrow, Tracy, Woo and Pressley, 1999; Pressley, Rankin and Yokoi, 1996; Ruddel and Ruddel, 1995; Taylor and Pearson, 2002)

Specifically, the following characteristics apply to literacy instruction used by exemplary teachers:

a. provide a literacy rich environment with accessible materials;

b. try to carry out meaning-based literacy instruction to motivate interest;

c. provide an organized and comprehensive program of skills development in phonemic awareness, phonics, vocabulary, comprehension and fluency;

d. use quality (children's) literature, along with many different materials for teaching reading and writing;

e. attend to individual literacy needs by forming small groups for some guided instruction of skills; and,

f. literacy instruction takes place during a long, uninterrupted time period and is integrated throughout the school day (Gambrell & Mazzoni 1999; Morrow et al 1999; Pressley, Allington, Wharton-McDonalds, Block & Morrow, 2001; Pressley et al, 1996).

The views raised in the above discussion highlight the important role played by the teacher in the development of literacy skills in the ESL learners. In this study, the English language teacher, approved syllabus and relevant reading materials were resourceful in the execution of lessons, and eventual determination of the effect of pre-reading activities on reading comprehension performance.

2.3.3 Teacher Preparation for Literacy Instruction

Referring to the American context, Sailors (2008, p.253) claims that "teachers are taught basic skills of reading instruction and send out to teach with the understanding that, in time, they will learn all that they need to know to support comprehension. This is simply not true". Pretorius and Klapwijk (2016) say the same is true for South Africa. First, they doubt if the pre-service and in-service teachers are even taught basic skills of reading instruction and the underlying conceptual basis that informs such instruction. It is observed that literacy development and instruction constitute about 6% in teacher development courses across the country. Secondly, it is noted that

SA has a challenge of pedagogic content knowledge, the transformation of conceptual knowledge into knowledge-in-practice.

The situation in Kenya is not different. Barasa (2005) hints at this with regard to initial teacher training for English language teaching. Quoting Eskey, Barasa (2005) notes:

> A major problem world-wide in the field of language teaching is the popular belief that anyone who can speak a language can read it. The fact is, however, that language teaching requires a special combination of knowledge and skills that is always hard to find, and finding teachers who have it should be the first concern of any good administration.

Barasa (2005, p. 42) further argues that "there is a weakness in the teacher training program". This is because the departments of language and linguistics, literature and the faculty of education lack a coordinated plan that could address effectively the needs of training an English Language Teacher (Barasa, 2005).

The present study acknowledged the fact that English language teachers play a critical role in reading comprehension instruction but assumed that the language teachers incorporated in the study had gained requisite training. Experience and pedagogical content knowledge to select, plan and guide learners through the pre-reading activities whose effect on performance in reading comprehension tasks or tests was then established.

2.3.4 Planning for Reading Lessons

Lesson planning is critical for effective instruction in all school subject areas. KIE (2002, p.5) now KICD states that "selection of reading materials should be done very carefully and, if possible, pre-reading activities planned". Santagata, Zannoni and Stigler (2007) in Modiba and Simwa (2015, p. 3) argue that "lesson planning comprises a range of forms of knowledge for teaching. These include, among others

… 'goals for students' learning, instructional activities, strategies for monitoring students' thinking and assessing their learning, curriculum and pedagogy'…"

Piper, Sitabkhan, Mejia and Betts (2018, p. 9) observe that "the notion of scripted lesson plans in teachers' guides comes from the idea that direct and explicit teaching scaffolds teachers' ability to effectively teach literacy skills, particularly the key components of reading (e.g. phonemic and phonological awareness, fluency and comprehension". In a study on *Effectiveness of Teachers' Guides in the Global South: Scripting, Learning Outcomes, and Classroom Utilization*, it was revealed that teachers found some activities difficult to teach (Piper, Sitabkhan, Mejia and Betts, 2018).

In the study conducted in Ethiopia, Malawi, Uganda and Kenya, teachers cited writing and comprehension as the most difficult activities for them and their students. As for comprehension, the teachers noted that "prediction activity was particularly difficult. Prediction activities are pre-reading comprehension exercises whereby the teacher asks the students to make a prediction about the title or picture to help activate background knowledge. If implemented well, this will increase reading comprehension" (Piper et al, 2018).

2.3.5 Philosophy of Teaching: Perspectives and Implications on Reading Comprehension

The researcher's philosophy of teaching is informed by his training background as a teacher of English and Literature; postgraduate studies in English Language Teaching (ELT); many years of practice in teaching and evaluation of candidates in English at secondary school level in Kenya. Kenny (2008) in Campos (2014, p. 47) considers a teaching philosophy "as a clear and logical statement that communicates what your

fundamental values and beliefs are about teaching, why you hold these values and beliefs, and how you translate these values and beliefs into your everyday teaching and learning experiences." It is one's rationale of teaching.

A teaching philosophy is important because it enables a teacher to reflect upon his/her teaching, students, methodology, ideals as a teacher, level of professionalism, personal learning, involvement, teaching beliefs and values etcetera (Kenny, 2008 in Campos, 2014). Campos (2014) adds that a philosophy of teaching is useful since the teacher's beliefs and learning usually have a positive impact on the students and classroom environment; teachers tend to implement classroom practices that reflect their philosophical beliefs; and, a well-done teaching helps the instructor to reflect and act appropriately in the classroom. At this point, it may be useful to pose these questions: Do teachers of English language at secondary schools in Kenya know about philosophy of teaching? Are they driven and guided in their practice by a philosophy of teaching?

The researcher took cognizance that the reading skill takes a significant portion of the secondary school English syllabus in Kenya. The researcher was aware that as early as Form two, learners are exposed to both extensive and intensive reading. They are exposed to many comprehension passages, library lessons, oral literature genres, poetry, and class readers. In fact, every unit of the course books has a section for extensive reading. This sets the stage for more rigorous extensive and intensive reading at Forms Three and Four, culminating into the traditional annual summative KCSE examinations. Therefore, given the many opportunities of teaching comprehension to students at secondary school in Kenya, it appeared natural to conclude that the performance in reading comprehension for every candidate should

be above the ideal mean. However, as pointed out earlier, the performance in reading comprehension was below the ideal mean and this prompted the researcher to reflect upon the teaching of reading comprehension at secondary school level in Kenya.

As a believer in the uniqueness of the teachers and learners, the researcher acknowledged that naturally, there were individual differences among teachers and learners exhibited in the nature of teaching and learning in the language classrooms in the study location. Ehrman, Leaver and Oxford (2003, p.324) observe that "…just as students vary, so do teachers: in motivation, in overall aptitude, in self-efficacy as teachers, in teaching-learning style, and in preferred strategies. Self-knowledge can be as important for teachers as it is for students". The individual differences were an important extraneous variable that could determine variations in performance among ESL learners, language classrooms or even schools. Knowledge of the existence of individual differences calls for pedagogical practices in which "teachers must know their learners well and build on existing knowledge and abilities" (Mukwa in Mwaka, Nabwire and Musamas, 2014, p.6). Therefore, the researcher believes that the ESL teachers should put their students at the centre of all classroom language activities as they reflect upon innovative strategies of teaching.

2.4 Phases of Reading

UNESCO (2010) observes that the competent strategic reader follows a plan for many different kinds of texts. This entails activities before, during and after reading.

    a. Before reading, the reader:

        i.   Previews the topic the text by looking at the title, the pictures, and the print to evoke relevant thoughts and memories.

    ii.   Builds background by activating appropriate prior knowledge through self-questioning about what is known about, the vocabulary, and the format of presentation.

    iii.   Sets purposes for reading by asking questions about what the reader wants to know.

b. During reading, the reader:

    i.   Checks understanding of the text by paraphrasing the author's words.

    ii.   Monitors comprehension by using context clues, to figure out new words, and by imaging, imagining, inference and predicting.

    iii.   Integrates new concepts with existing knowledge, continually reviewing purposes for reading.

c. After reading, the reader:

    i.   Summarizes what has been read by retelling the plot of the story, or the main idea of the text.

    ii.   Applies ideas in the text to situations, broadening these ideas

Varaprasad (1997) in Saricoban (2002, p.3) further elaborates the above stated stages by examining reading activities in what is described as a three-phase approach as below:

Pre-reading Stage

The pre-reading stage attempts to:

1. improve students' interest in the topic, and motivate them;

2. provide some predicting/guessing activities for the reading passage;

3. make use of students' background knowledge about the topic;

4. prepare the students for the context of the reading passage;

5. build a bridge between the reading passage and the learners' background knowledge, and interests.

In pre-reading activities, students are asked to:

a. find answers to given questions based on the text;

b. give their personal opinion about the topic;

c. predict the continuing text

In critical pre-reading activities, students can be asked to consider:

a. the reason the author is writing about the topic;

b. the whole range of ways to write a particular text;

c. the generating of their own list of questions.

Reading Stage

This stage aims to improve:

1. students' understanding the writer's purpose, the language structure and the logical organization in the reading text;

2. developing and helping comprehension for the reading text content;

3. helping students use their own inferring and judging abilities;

4. reminding the students of the importance of vocabulary for contextual clues for meaning and guessing the meaning of unfamiliar words;

5. helping students make use of cross-cultural elements;

6. helping students develop their linguistic and sociolinguistic knowledge;

7. learning to generalize on the issue under discussion;

8. reading consciously;

9. skimming (looking for general information);

10. scanning (looking for specific information).

Post-reading Stage

The aims of post-reading work are:

1. to help students use their acquired knowledge in similar readings;

2. to help them integrate their reading skills with the other language skills: listening, speaking and writing;

3. to help them integrate with the foreign culture;

4. to make use of key words and structures to summarize the reading passage;

5. to extract the main idea of a paragraph or a reading text;

6. to interpret descriptions (outlining and summarizing);

7. to make use of classroom games for reading.

The above described stages or phases are also known as pre-reading, during reading and post-reading. This study focused on the activities before reading (pre-reading); the activities which were meant to activate the readers' background knowledge so as to enhance reading comprehension.

2.4.1 Pre-reading

This is the first in a sequence of activities aimed at helping students become better readers. It helps students prepare for reading a text by either dealing with the topic, its genre or relevant language. This could be through a number of ways such as activating students' schemata or prior knowledge of the topic; encouraging predictions related to context and content of the text; pre-teaching vocabulary that is essential for understanding the text; and last but not least, allowing learners to engage in the topic through meaningful interaction (such as discussions). Pre-reading is

viewed as a way to access the reader's previous knowledge and "provide a bridge between his knowledge and the text" (Tierney & Cunningham, 1984, p.610).

An effective pre-reading program may include one or more of the following characteristics:

a. it engages learners in the topic and generates interest in the text;

b. it focuses learners' attention and interest on characteristics of the specific text (for example, "what would you expect to see in a passage on gender violence?") instead of the broad topic (for example, "what is gender violence?");

c. it provides opportunities for student to student interaction rather than relying solely on teacher-whole group patterns;

d. it allows learners to recall (or learn) vocabulary that appears in the recorded or written text, and,

e. it raises awareness of the characteristics of the genre.

In this study, the reading teacher provided the learners with opportunities to interact as they brainstormed on salient issues in the text to be read; carefully selected vocabulary was also pre-taught. Brainstorming and vocabulary pre-teaching were meant to raise awareness about the text. With the creation of awareness, reading comprehension was presumably enabled. The study therefore determined the effect of pre-reading activities on reading comprehension performance in ESL classrooms.

2.4.2 Place of Pre-reading in Kenya Secondary English Syllabus

According to KIE (2002) now KICD, reading skill is handled as content at the level of reading comprehension or listening comprehension during intensive and/or extensive reading lessons. Roy-Campbell (2014, p.88) argues that "teaching English is

determined by the learning standards or syllabi that have been endorsed by the educational hierarchy of the country…" In view of the revised English syllabus (KIE, 2002), the integrated approach was adopted for the teaching and learning of English in Kenya. Barasa and Omulando (2015) in Syomwene, Nyandusi and Yungungu (2017, p. 210) explain that this integration was to be realized at various levels. For example;

i.   At content level, to entail a consideration of content from various sources of information (E.g. newspapers, magazines, television, radio broadcasts etc.);

ii.   At methodological level, which gave rise to integrating at language teaching methods, techniques, learning activities and teaching resources level, thus promoting eclecticism in ELT;

iii. At the level of planning for instruction;

iv.   At the level of curriculum and syllabi design, development and the subject matter, whereby content from other subjects in the curriculum could be harnessed for development of specific communicative and linguistic competence in English; and,

v.   At the level of philosophy of teaching and learning.

With regard to the views of these scholars, methodological integration will particularly reflect the nature of this study. Pre-reading activities were considered in this study as critical sub-skills that perform a facilitative role in teaching reading comprehension. "The secondary school English language recognizes that reading is a complex skill that involves many different subskills" (Barasa and Omulando, 2015 in Syomwene, Nyandusi and Yungungu, 2017). Pre-reading activities stimulate prediction, necessary for enhancing comprehension. Indeed, Aebersold and Field (1997) distinguish between pre-reading and reading comprehension with the former being an aspect of pedagogy and the latter being content. In this sense, pre-reading

activities could lend themselves as a method to be combined with, say question-answer, to deliver content in a reading comprehension lesson successfully. KIE (2006) now KICD recommends that the teaching of reading should be integrated with the teaching of other language skills and grammar.

Some of the numerous reading skills taught in Kenya include use of a dictionary, use of the library and speed reading. The current study took cognizance of these skills. For example, knowledge of how to use the dictionary is critical in pre-teaching vocabulary. Though learners may decipher meanings of words from context, the dictionary is still a necessary guide.

The more learners develop the habit to visit and read relevant materials in the library, the more they increase their schemata. When activated, these schemata help in enhancing reading comprehension. KIE (2006, p.57) recommends thus, "teachers (should) encourage learners to use the library during their free time but a lesson should also be set aside for this purpose." Then, one of the things speed reading entails is to train learners to "make predictions from title(s), diagram(s), picture(s) and statistics" (KIE, 2006, p.59). They can do so by:

a. Asking the learners questions

b. Holding group discussions and debates relevant to the experiences in the text (KIE, 2006, p. 64).

On the other hand, extensive reading can be taught using materials such as newspapers, novels, journals, plays, periodicals, magazines etcetera. This corresponds with the objectives of teaching reading at Form Two, such as "objectives 7.1 (c) - 'enjoy reading literary and non-literary materials' and 7.1 (h) – 'demonstrate awareness of contemporary issues'…" (KIE, 2006, p.68).

The teacher may use group discussion to teach extensive reading.

In compliance with the requirements of the English syllabus in Kenya, the MOE has approved a number of course books at Secondary school level. In this study, the researcher examined *Secondary English: An Integrated Approach, Form Two Students' Book (Third Edition)* as well as *Secondary English: An Integrated Approach, Form Two Teachers' Guide (Third Edition)*, published by Kenya Literature Bureau. This was specifically meant to ascertain whether there are deliberate provisions for the use of pre-reading activities as pedagogical strategies that teachers can use to increase learners' reading comprehension.

Indeed, all the sections on reading comprehension in the Students' Book have corresponding instructions in the Teachers' Guide on how teachers should prepare pre-reading activities on vocabulary, and discussions that relate readers' experiences with content in the text or passage.

For example, on the comprehension passage '*A Worthy Prefect*' in Unit One, the Teachers' Guide suggests in *Activity 3* that "As a pre-reading activity, (teachers should) ask the students what qualities they consider desirable in a class secretary or any other leader for that matter. Direct the discussion to bring out positive attributes such as humility, patience, honesty, diligence and ability to lead" (Mwangi, Kisirikoi, Gichema and Mukunga, 2018, p.3). This is ideally a brainstorming session, whose effect on activating the learners' background knowledge (on the notion of good leadership) and hence comprehension of the text is presumed in this study. This course book also has numerous activities on every comprehension passage for learners to find out meanings of words. A good English dictionary is recommended

for reference. This study examined the effect of pre-teaching vocabulary on reading comprehension performance in a language classroom.

The study foresaw a possibility that learners or teachers in the reading comprehension classroom may inadvertently bring on board many pre-reading activities not envisaged by the study. Therefore, the researcher developed guidelines and shared with language teachers on how to conduct reading lessons in experimental classrooms (where pre-teaching vocabulary and brainstorming were used), and even for the control group.

2.4.3 Pre-reading Activities

KIE (2002, p. 6) suggests that "Selection of reading materials should be done very carefully and, if possible, pre-reading activities planned." Pre-reading activities are considered as warm-up activities which engage students in preparation for a reading task. The activities may differ in terms of length and amount of time required to complete it by the student. The current study established how long it would take to pre-teach key vocabulary and brainstorming according to the set guidelines. The study identified these specific pre-reading activities because there is evidence of studies on their connection with reading achievement among ESL learners from outside Kenya. Therefore, this study intended to affirm that these particular pre-reading activities are very critical for attainment of Kenyan ESL learners' above-average performance in reading comprehension tasks.

Yusuf (2011) identifies some of the pre-reading activities that may be found relevant to teachers for activating learners' schemata include:

a. asking learners questions on the topic of the text itself in order to brainstorm as to what they expect the text to contain, which may be continued, refuted or moderated later by the text content;

b. getting learners to draw or label a diagram related to the topic or text;

c. asking learners to attempt the comprehension questions before reading the text;

d. teacher drawing up his own questions based on the text as pre-questions on the subject matter of the text;

e. giving learners a task centred on a problem, the solution of which can be checked in the text. These activities guide and arouse interest on: a) purpose of the text; b) information contained in it (text); and c) value of such information to the learners (Yusuf, 2011).

Furthermore, studies on pre-reading activities by Langer and Johnson as cited in Yusuf (2011) have demonstrated that the facilitative effects of activating the reader's prior knowledge are relevant to understanding the new text. Yusuf notes that according to these scholars, pre-reading activities not only prepare readers for the concepts that follow but also make the reading task easier and connect the new concept more meaningfully to prior knowledge.

Pre-reading activities include all the tasks and discussions before reading to reduce the uncertainty that the students bring to the text (Vacca & Vacca, 1989). Celce-Murcia (1991) in Maretnowati (2014, p. 17) says that "The goals of pre-reading stage are to activate or build (if necessary) the students' knowledge of the subject, to provide any language preparation that might be needed for coping with the passage, and, finally, to motivate the learners to want to read the text". Pre-reading activities may be used for different purposes. Vacca and Vacca (1989) list four purposes of pre-

reading activities. They include motivating readers, building and activating background knowledge, introducing key vocabulary and concepts, and developing awareness of the task demands of the assignment and strategies necessary for effective learning. The teachers should select appropriate pre-reading activities related to the reading text.

Teachers may also combine different pre-reading activities in the pre-reading stage. According to Hedge (2000, p.210), "A range of activity types are possible at this stage and teachers can select or combine from a repertoire…" This study would principally find out whether the use of pre-teaching vocabulary and brainstorming by reading teachers in ESL classrooms in Kenya had a significant effect on performance of reading comprehension tasks.

Many studies have shown that pre-teaching vocabulary can aid learners to achieve reading comprehension. It is suggested that teaching vocabulary is a specialized aspect of developing background knowledge essential for comprehension and is widespread in most reading programs (Beck, McKeown, McCaslin & Bucke, 1980). Becker (1977) recommends that disadvantaged students be taught 25-word meanings per week, starting in third grade and continuing through twelfth grade, in order to compensate for the students', lack of conceptual knowledge. Perfetti in McKeown and Kukan (2010) says that comprehension is obviously dependent on knowing the meanings of words being read. Alderson (2000) in Babashamshi, Bolandifar and Shakib (2013) states that measures of a reader's vocabulary knowledge routinely correlate highly with measures of reading comprehension, and are often the single predictor of text comprehension. Liu and Nation (1985) in Babashamshi, Bolandifar and Shakib (2013) say however, that in order to get sufficient comprehension, readers

require knowing 95 – 98% of the words in the text. Armbruster and Osborn (2002) found that mastery of vocabulary correlated with reading comprehension. Similarly, Mihara (2011) says that pre-teaching vocabulary helps address unfamiliar words or phrases that can interfere with students' comprehension.

This study acknowledged that there are several pre-reading activities or strategies available for use by a language teacher in the ESL classroom. Meylana (2019) observes that techniques and strategies such as previewing, scanning and skimming enable the EFL students comprehend the reading text in the advanced reading course in Indonesia. However, according to the scope of the current study, only two pre-reading activities were assessed: pre-teaching vocabulary and brainstorming. Wallace (1992) in de Sousa (2012) identifies two types of pre-reading activities: those which consist of questions to which the reader is required to find the answer in the text and, tasks focused on preparing the reader for likely linguistic difficulties in the text. Pre-teaching vocabulary and brainstorming fall in the latter group since they are among strategies that "encourage students to use prior knowledge, experiences, careful thought and evaluation to help them decide how to practically apply what they know to all reading situations" (Unal, 2017 pp.140).

Various scholars have identified and discussed a number of pre-reading activities that may be used by the reading teachers in the language classroom. For example, teachers may use pre-questioning (Ajideh, 2006; Vacca and Vacca, 1989); pre-teaching vocabulary (Beck, McKeown, McCaslin & Bucke, 1980; Becker, 1977; Armbruster & Osborn, 2002; Mihara, 2011); brainstorming (Wallace, 2003); previewing (Vacca & Vacca, 1989), and visualizing (Navaro, 2008). As already clarified, this study was specifically based on pre-teaching vocabulary and brainstorming in ESL classrooms

for purposes of determining their effect, separately as well as comparatively, on performance of learners in reading comprehension tasks.

2.4.3.1 Pre-teaching Vocabulary

Jalongo and Sobolak (2011) argue that comprehension can be disrupted if great deals of unfamiliar words are in the text. Studies have indicated that comprehension increases when teachers use strategies that focus on teaching vocabulary before beginning instruction (Minarik & Lintner, 2011; Vaughn et al., 2013). ESL teachers should devote themselves to identify and teach vocabulary that is relevant to the reading. The first step to providing students with the tools to be successful in comprehension is to teach vocabulary that is relevant to the reading. Hall (2004) observes that comprehension increases when students understand the definitions of the words that they will encounter before reading. Zuhra (2015); Hall (2012), and Tartila et al. (2013) in Meylana (2019) note that students face reading comprehension problems due to their inability to understand meaning of words in passages.

Blachowicz et al. in Somayyeh and Hossein (2018) state that pre-vocabulary instruction gives both contextual and definitional data regarding the words to be learned as well as the various exposures and chances to apply them. Somayyeh and Hossein (2018) posit that pre-vocabulary instruction in language reading classrooms gives a brief summary of the content of the passage before the reading and helps the learners to activate the background knowledge to interact with the text successfully. These scholars further claim that if there is no link to the words (indexes) in the text already, the pre-teaching will help the learner to activate meanings of the indexes.

Further, it is noted that "pre-teaching vocabulary has been determined to be associated with the access, instrumental, and knowledge activation. Students that have been pre-

taught vocabulary can comprehend a passage with more complex words" (Somayyeh & Hossein 2018, p. 59)

2.4.3.2 Brainstorming

Kirk and Spreckelmeyer (1993, p. 85) define brainstorming as "an organized way to allow the mind to produce ideas without getting bogged down in trying to judge the value of those ideas at the same time."

A study by Ghabanchi and Behrooznia (2014) on the impact of applying brainstorming on the learners' reading comprehension ability as well as their critical thinking ability revealed that brainstorming has a significant role in improving the participants' reading comprehension ability besides their critical thinking ability. Brainstorming can be an effective strategy in teaching English as a foreign language (FL) since it can motivate a group of learners to generate a large number of ideas (Ghabanchi & Behrooznia, 2014). These scholars further claim that one of the main benefits of brainstorming is the activation of readers' prior knowledge.

As Feather in Gabanchi and Behrooznia (2014, p. 514) notes, "Brainstorming provides plenty of materials for making prediction." So, it is noted that when brainstorming is used, then it is likely that the reader becomes conscious concerning what he knows about a given topic before he goes on to read it. Feather further argues that brainstorming enhances the activation of the readers' schema globally; so, they will know in advance about the ideas, vocabulary, culture, grammatical features and genre structures which are most probably met in the text to be read.

In the present study, the ESL teachers were issued with guidelines on brainstorming. They were taken through the guidelines before they creatively used brainstorming as a pre-reading activity prior to reading the comprehension passage. The effect of using

brainstorming as a pre-reading activity would be determined when the test results of the experimental group (that used brainstorming) was analyzed and compared with those of the control group (ESL classroom where no pre-reading activities were used at all).

2.5 Reading Comprehension

Muya (1993) in Athiemoolam and Kibui (2012) points out the general outcry by educationists, potential employers and ordinary citizens who contend that most of the secondary school leavers and university graduates are not equipped with the skills in reading and writing in English. Yet, as Sadoski (2004) states, comprehension is pivotal to reading as it occupies the central place on the continuum where input from the print and the reader is in central balance. Athiemoolam and Kibui (2012) contend that quite often, comprehension is difficult for second language readers because of cultural factors.

Van den Broek and Espin (2012) define reading comprehension as a complex interaction among automatic and strategic cognitive processes that enables the reader to create a mental representation of the text. Comprehension depends not only on characteristics of the reader, for example, prior knowledge and working memory, but also on language processes such as basic reading skills, decoding vocabulary, sensitivity to text structure, inferencing and motivation.

Many studies have been conducted on the subject of reading comprehension in the language classroom. For example, studies on the role of cognitive skills in reading comprehension show that readers who practised reading the words until they automatically recognized them (became fluent) were able to accurately answer comprehension questions about the text (Tan & Nicholson, 1997). Moreover, an

empirical study of the correlation between word knowledge and reading comprehension was published over 70 years ago (Davis, 1942), and has been replicated in decades of research consistently identifying knowledge of vocabulary as a primary predictor of reading comprehension development (Thorndike, 1973; Beck, Perfetti and McKeown, 1982; Carrol, 1993; Torgeson et al, 1997; de Jong & Van der Leij, 2002; Braze, Tabor, Shankweiler & Mencl, 2007). Other cognitive skills that studies have shown bear a relationship on reading comprehension include semantic awareness (Sencibaugh, 2007); visualization (Pressley, 2002); working memory (Garcia-Madruga et al, 2013); reasoning and inference (National Foundation for Educational Research, 2008).

Equally, research has shown that cognitive strategies and meta-cognition have an effect on the outcomes of reading comprehension. Based on a comprehensive review of research, the National Reading Panel (2000) identified several strategies that contribute to successful reading comprehension: prediction, activating prior knowledge, questioning, visualizing, monitoring and clarifying, and drawing inferences. Studies also show that meta-cognitive use of strategies has a positive correlation with reading comprehension scores (Dermitzaki, Andreou & Paraskeva, 2008).

These studies, however, are based on L1 English learners and do not show the influence of pre-reading activities on the reading comprehension outcomes in the language classroom. The current study, based on L2 English learners, sought to explore a new frontier in understanding reading comprehension in language classrooms: effect of using pre-reading activities. The study was premised on the rationale that pre-reading activities elicit prior knowledge, build background and

focus attention (Ringler & Weber, 1984). Learners need to be motivated to read. Chastain (1985) says that the purpose of pre-reading activities is to motivate the students to want to read the assignment and to prepare them to be able to read it. This study therefore intended to determine if pre-reading activities had a significant effect on performance of ESL learners in reading comprehension tasks in the language classroom.

2.5.1 Reading Instruction and the Kenya Secondary School Language Syllabus

According to KIE (2002, p.2) now KICD, the revised secondary syllabus in Kenya, the following observations are raised with regard to teaching reading:

> The ability to read fluently and efficiently is vital both in school and for life. Good reading skills will improve performance in all school subjects. Reading helps in information gathering and learning of concepts. Through reading the learner is exposed to new vocabulary, new sentence structure and different registers. Reading also acquaints the learner with good models of language use. The teacher should devise strategies that will make reading interesting and fulfilling. Selection of reading materials should be done very carefully and, if possible, pre-reading activities planned.

The secondary Education English syllabus in Kenya has adopted an integrated approach to teaching of language. There is integration of language and literature and/or integration of language skills: listening, speaking, reading and writing. The time allocated for the teaching of English at Secondary school level is six (6) lessons a week in Forms 1 and 2 and eight (8) lessons a week in Forms 3 and 4. The use of integrated approach is expected to help maximize utilization of this time and ensure effective coverage of the syllabus (KIE, 2002).

KIE (2006) also recommends that teachers identify bad reading habits that may have been carried on from primary school and help the learner to overcome them. This study held that the said bad reading habits could be tackled during pre-reading

sessions so as to improve reading comprehension and ultimately, improve scores of reading comprehension tasks. Some of the general objectives of teaching English in secondary schools in Kenya are specific to reading. For example, at the end of the course, the learner should be able to:

a) Read fluently and efficiently (objective No. 6);

b) Appreciate the importance of reading for a variety of purposes (objective No. 7);

c) Develop a life-long interest in reading a wide range of subjects (objective No.8);

d) Read and comprehend literary and non-literary materials (objective No. 9); and

e) Read and analyze literary works from Kenya, East Africa, Africa and the rest of the world, and relate to the experiences in these works (objective 10). (KIE, 2002, p. 6).

The specific objectives of teaching reading at Form Two (2) level are also entailed in English Secondary school syllabus. For instance, by the end of Form 2, the learner should be able to:

a) Scan and skim effectively;

b) Make effective use of the available reference materials;

c) Enjoy reading literary and non-literary materials;

d) Analyze characters and themes from selected novels and plays;

e) Analyze simple aspects of style;

f) Demonstrate appropriate comprehension skills;

g) Build a wide range of vocabulary; and,

h) Demonstrate awareness of contemporary issues.

Research on reading at the lower primary schools show that there is a correlation between progress in reading achievement at such a stage and later in life. Unless the children make sufficient progress at this stage, they are liable either to cease coming to school entirely, relapsing into illiteracy or to become the silently excluded who are not able to access the increasingly demanding work of the later grades (Lindell & Rae, 2001; Lewin, 2009; UNESCO, 2010; Glick & Sahn, 2010). Bunyi et al (2011) adds that this is particularly true in reading and mathematics which underpin understanding across the school curriculum.

2.5.2 Reading Comprehension Instruction

Rasinski in Morrow et al (2003, p. 10) observes that "the foundation for all instructional practice, regardless of one's theoretical or pragmatic orientation to reading, is the goal of improving reading achievement for all students. The reading comprehension instruction is a process.

2.5.2.1 Factors that Influence Reading Comprehension Instruction

A part from macro level factors, for example, high levels of poverty, low parental literacy levels, poor governance in many schools, poorly resourced schools and poorly qualified teachers, there are other factors associated more closely with language and reading literacy that relate to poor reading comprehension (Pretorius & Klapwijk, 2016). Such factors include the role of home language and the language of learning and teaching in reading, the focus of instructional attention related to reading, and teacher reading perceptions and practices – their reading "habitus" (ibid).

a. The Language Issue

In South Africa, majority of learners do not use their L1 (home language) and therefore language may be a factor for poor comprehension, especially in First

Additional Language (FAL) reading. Howie et al (2008) as quoted in Pretorius and Klapwijk (2016) note that in South Africa, reading problems tend to be masked by language proficiency issues - the assumption is that when learners experience difficulty with using reading as a tool for learning, then their comprehension problems are a product of limited language proficiency. However, language proficiency and reading ability are inextricably linked but not synonymous. While it is important to attain high levels of reading ability among learners, Alexander (2006) in Pretorius and Klapwijk (2016) notes that language medium policy and practice in and of themselves are necessary but not sufficient explanations of poor academic performance.

b. Focus of Instructional Attention

Citing from Pretorius and Machet (2004); Verbeek (2010); Murris (2014); and Prinsloo et al (2015), Pretorius and Klapwijk (2016) observe that despite that meaningful comprehension is the goal of reading instruction, research indicates that teachers spend a lot of time focusing on mechanical skills of decoding rather than on meaning and comprehension. Thus, teachers are not effectively developing learners' basic reading skills that support comprehension (Pretorius & Klapwijk, 2016). These scholars also note that the poor reading outcomes suggest that even basic reading skills are not being properly developed, at great cost to learners' ability to read to learn and subsequent academic performance in South Africa.

The present study concurred that language teachers play a critical role in the development of learners' reading skills and would establish the effect of using pre-reading activities on reading comprehension outcomes in classroom non-standardized tests or classroom comprehension tasks in Kenya.

c. Teacher Knowledge and Orientations to Reading

Pretorius and Klapwijk (2016) note that teachers' perceptions of reading and their own reading practices may also be contributory factors to learners' low literacy levels. These teacher perceptions are referred to as "teacher cognitions" - what teachers think, know and believe and "the relationship of these mental constructs to what teachers do in the language classroom" (Borg, 2003, p.81). The role of teachers is key in the development of literacy skills and habits in their learners, yet they need to be skilled readers themselves (Pretorius & Klapwijk, 2016). To be reflective reading teachers, teachers need to know about reading and how to teach it, and they need to be skilled readers themselves, familiar with different genres of text (Pretorius & Klapwijk, 2016).

The present study assumed that the teachers of language have both content and pedagogical knowledge base and therefore capable of choosing appropriate comprehension passages from the Form Two Kenya Secondary English syllabus, and preparing suitable pre-reading activities so as to determine their effect on the reading outcomes of the learners in tests or tasks based on the passages.

2.5.2.2 Reading Comprehension and Vocabulary Instruction

The correlation between good reading and extensive vocabulary has been repeatedly verified through research and practice (Morrow, 2003). Even more impressive is that teaching vocabulary increases the students' comprehension skills. An effective comprehension and instructional programme include vocabulary instruction, for if readers cannot understand the individual words in text, they will not be able to understand the complex relationships specified by words in sentences, paragraphs and passages (Morrow, 2003).

Readers have to understand what words mean before they can construct understanding of text passages. The first empirical study of the correlation between word knowledge and reading comprehension was published over 70 (seventy) years ago (Davis, 1942), and has been replicated in decades of research consistently identifying knowledge of vocabulary as a primary predictor of reading comprehension development (Thorndike, 1973; Perfetti & McKeown, 1982; Carroll, 1993; Torgeson et al. 1997; de Jong & van der Leij, 2002; Braze, Tabor, Shankweiler & Mencl, 2007). In a longitudinal study of children from kindergarten through second grade, Roth, Speece and Cooper (2002) discovered that vocabulary skills, such as oral definitions and word retrieval, were the best predictors of reading comprehension development. Other researchers also suggest that vocabulary knowledge is a consistent predictor of reading comprehension from fourth through eighth grades as well (Bos & Anders, 1990; Yovanoff, Duesbery, Alonzo & Tindal, 2005). Even Sencibaugh (2007) suggests that students with poor comprehension exhibit a lack of semantic awareness characterized by an inability to attach meaning to words.

Nation in Hinkel (2006) observes that although in the 1970s and 1980s the teaching and learning of vocabulary was considered to be largely secondary to the teaching of other second language skills, at present a great deal more is known about the connections between L2 reading and vocabulary knowledge. Hu and Nation (2000) show that an L2 reader needs to understand approximately 98% of the unique words in such texts as short novels or academic materials. Nation (2005) and Hulstijn (2001) say that research has not supported the contention that meaning-focused use and encounters with new words in context are the best way to learn vocabulary. They underscore that the converse approach is probably true - that deliberate attention to

decontextualized words is far more likely to lead to learning, although new vocabulary can certainly be reinforced in the context of other L2 skills.

Eskey in Hinkel (2006, p. 567) says that "the relationship between reading and vocabulary is well documented and reciprocal"; the more one reads, the larger his or her language base.

2.5.3 Good Readers and Reading Comprehension

When good readers tackle a text, they do the following (Pressley & Afflerbach, 1995):

a) They generally read from the beginning to the end of a text, although they sometimes jump around, looking ahead in anticipation for information or looking back to clarify any ideas not understood on the first pass.

b) They encounter information especially relevant to their goal in reading the text.

c) They anticipate what might be in the text based on their prior knowledge about the topic of the text.

d) They monitor as they read; that is to say, while reading, they are very aware of which parts of a text are important, and which ideas are vague and confusing. Such self-monitoring guides decision-making during reading (For example, deciding to slow up, read faster, or skip sections of text).

e) They reflect on what they read, for example, thinking about how they might use the ideas in the text. Such reflections can be interpretive, often affected by prior knowledge.

It is important to note that good readers are very active and strategic as they read. This study intended to prove that pre-teaching vocabulary and brainstorming are important

activities in nurturing good readers who can achieve significantly in their reading tasks.

2.5.4 The Relationship between Pre-Reading Activities and Reading Comprehension

From existing literature, suggestions have been made to the effect that pre-reading activities should be used to activate readers' existing schema or to provide learners with crucial information about the topic they will be reading (Ajideh, 2003; Brown, 2001). Wallace (2001) concurs by adding that activating readers' pre-existing schema helps them integrate the new information from the text into their pre-existing schemata. It is only after the schemata is activated that one is able to see or hear, because it fits into patterns that he/she already knows (Harmer, 2001).

When learners are familiar with the topic of the text they are reading (content schema), as well as the discourse level and structural make-up of the genre of the text (formal schema) and skillful in the decoding of features needed to recognize words and realize how they fit together in a sentence (language schema) they are better placed to comprehend their assigned reading (Carrell, 1988 in Brown, 2001; Shen, 2004; Pulido, 2004).

A study on 40 Brazilian undergraduate EFL students revealed that schema-based pre-reading tasks (SBPRT) had a significant effect on reading comprehension (Taglieber et al, 1988). The study revealed that students' comprehension scores became higher when the reading was preceded by any of the three SBPRTs (guessing reading content from pictures, pre-teaching vocabulary and pre-reading question) than when reading was not preceded by a pre-reading activity. In a similar study, Ajideh (2003) focused

on tasks such as previewing, semantic mapping and questioning and equally found out that SBPRTs significantly improved students' reading comprehension.

Chatmore (2003) posits that in general practice of teaching reading, teachers could provide reading promoting activities, such as the activities that interest the learners. The activities should contain objectives that suit learners and teachers' interest. The teacher should have suitable steps of teaching reading. The pre-reading step would prepare the reader before they read the whole material. The pre-reading activities help the learners have certain amount of background knowledge about the reading text because the schema would help the reader get better comprehension (Graves, Watts & Graves, 1994). For example, in studies by Yeeding (2007) and Taglieber, Johnson and Yarbrough (1988) it was found that the use of pre-reading activities made learners highly motivated and enthusiastic to read, and enhanced the reading scores respectively.

The present study looked at specific pre-reading activities (pre-teaching vocabulary and brainstorming) as is the case with the study by Taglieber, Johnson and Yarbrough (1988). However, there were two experimental groups and a control group. Each of the experimental groups was exposed to only one pre-reading activity: either pre-teaching vocabulary or brainstorming. All the groups were given a common reading comprehension test to determine the effect of the two pre reading activities on performance of learners in reading tasks.

To handle areas of difficulty noted in students' answers, the KNEC report on English for the KCSE examination of the year 2022 (RoK, 2022, p.3) advises teachers thus: "students should be encouraged to read the set books well enough to recall needed information and make necessary inferences as per the demands of the test. In addition,

teachers should devise adequate strategies for encouraging students to read all the prescribed texts". The said strategies include pre-teaching vocabulary and brainstorming, both of which should prepare learners to handle comprehension challenges in the texts.

2.5.5 Schemata and Reading Comprehension

Research has shown that schemata are useful in reading comprehension so much so that deficiency in any of the schemas will result in a reading comprehension deficit. Carrel (1988b, p. 145) states that "students' apparent reading problems may be problems of insufficient background knowledge [content, formal and linguistic]". However, students may have sufficient schemata but remain unable to comprehend the text if such schemata are not appropriately activated (Carrel, 1988b). Some studies agree that some mechanism activates just those schemata most relevant to the reader's task (Carrell & Floyd, 1987; Cook, 1989; Paliscar, 1984; Rumelhart, 1994). This study therefore explored if the use of pre-reading activities to activate the ESL students' schemata had a significant effect on their reading Comprehension outcomes.

Brown (2001) observes that a text does not carry meaning by itself. This implies that the reader brings information, knowledge, emotion and culture- which all constitute schemata- to the text. Brown (2001) also seems to suggest that the reader's understanding of a text depends on how much related schemata the reader possesses while reading. As a consequence, the failure or confusion by the L1 or L2 readers to comprehend a text is as a result of their lack of appropriate schemata that should correspond with content of the text.

Cultural orientation of the reader, of which content schema is a part, has a major impact on all elements of reading. Thus, a reader may fail if his or her culture is

different from the one proposed by the text. Carrel and Eisterhold (1983, p. 80) say that "one of the most obvious reasons why a particular content schema may fail to exist for a reader is that the schema is culturally specific and is not part of a particular reader's cultural background". This study argued that an ESL reading teacher needs to explain to his or her learners the cultural aspects or orientation of a text during pre-reading stage so as to enable the learners to activate culturally specific schemata.

Koh (1986) found that a combination of linguistic proficiency and prior knowledge is important for comprehension. Carrel (1981) elaborates that not only is it important for the reader to have the background knowledge to read more efficiently, but that knowledge also needs to be activated. Koh (1986) argues that readers must activate their content schemata for the recreating of meaning from the text rather than focus on word-for-word deciphering which characterizes much of the ESL reading material.

This study concurred with Koh (1986) and Williams (1987) that pre-reading activities activate background knowledge and consequently enhance comprehension. Pre-teaching vocabulary and brainstorming were the applicable pre-reading activities in this study, and their effect on learner achievement in reading tasks was established.

2.6 Testing Reading Comprehension

Rasinski in Morrow et al (2003, p. 10) states that "the foundation for all instructional practice, regardless of one's theoretical or pragmatic orientation to reading, is the goal of improving reading achievement for all students." In view of the above assertion it is apparent that the essence of reading comprehension instruction is to enable learners to improve their performance in reading exercises. This study therefore determined the effect of using pre-reading activities by teachers in their language classrooms on the achievement of learners in reading comprehension tasks or exercises. The use of

pre-reading activities is a reading instructional strategy meant to activate background knowledge of readers with a view to enhance comprehension.

In Kenya, reading is tested in the English national examinations under English Paper Two (2) titled Comprehension, Excerpt Based on Set Texts, Literary Appreciation and Grammar. These examinations are written by students at the end of the four-year course in high school. In this study, the focus was on classroom non-standardized reading comprehension tasks or tests prepared by the language teachers. Karlin (1985, p. 5) says that "… achievement in reading proficiency in English language is a necessity to achievement in school and when there is no provision made for improvement by the poor reader, that student is eventually frustrated into a miserable state of failure". The study assumed that professionally trained teachers who had attained some experience of continuous teaching under the tutelage of more experienced colleagues were able to prepare a good, reliable and valid reading test or task for learners.

2.6.1 KNEC Reports on Performance of Students in Reading

KNEC (2013) states that:

> Performance of candidates in English Paper I dropped from 28.88 in 2012 to 21.67 in 2013. Performance in paper 2 improved minimally by 0.24 points from 28.53 in 211 to 28.17 in 2012 and then dropped drastically to 17.98 in 2013. There is a consistent drop in the mean performance of paper 3. The means of 18.60 (2011), 18.11(2012) and 15.30 (2013 indicate a worrisome trend that must be arrested. The net effect of the foregoing is that the overall performance in the English language examinations remains unsatisfactory.
>
> (KNEC, 2013)

Specifically, the report on English Paper Two (101/2: Comprehension, Excerpts Based on Set Texts, Literary Appreciation and Grammar) recorded the greatest drop in performance. The chief examiner's report on candidates' performance showed that

the questions testing inference and higher order skills made the paper a little higher pitched for the majority of the candidates. This so-called 'worrisome' state (KNEC, 2013) has not changed to-date. For instance, the 2022 KNEC report for English (KNEC, 2022) states that "… the overall performance in the subject (English) for the last five years still falls below the ideal mean of 50%". This was the basis of the problem in the current study, which necessitated an investigation to determine whether the use of selected pre-reading activities in the language classroom would improve ESL learners' performance in reading comprehension tests.

2.6.2 Challenges of Reading Tests

Macaro (2003, p.149) says that "testing reading is problematic because involves it the interrelationship of text and task as well as the student's language knowledge and L1 reading ability. Moreover, even within tasks there is usually a sub-structure of test items which do not necessarily match one-to-one with the information in the text." Alderson (2000) as quoted in Macaro (2003, p.149) says that "… a review of testing reading concludes that each individual reader will react to a test item differently. Those who set the tests are not in a position to predict how individual learners will react to test items. This undermines the reliability of the reading test."

Neather et al, (1995) and Powell et al. (1996) in Macaro (2003, p.149) found that different task rubrics had an effect on the performance in the task, although these were largely L2 responses to L2 texts. They found that if the task prompts were in L2, learners frequently wanted to have access to dictionaries for fear of not understanding the instructions." Macaro (2003) further suggests that there may be a problem of text interpretation, especially if inference of the author's underlying meaning is required; for example, in the case of irony or bias. He also notes that "if accessing meaning is a

social co-construction process, different readers will be constructing different meanings in the lonely environment of the examination room (Macaro 2003, p.149).

Sarig in Macaro (2003) suggests a solution: pretesting answers to questions should be by analyzing model answers to questions from samples of readers from different backgrounds and then, presumably, accepting all such answers from candidates. Alderson and Bannerjee (2002) in Macaro (2003, p.150) conclude that the general consensus is still that it is essential to use more than one test method when attempting to measure a construct like reading comprehension." This study recognized the challenges posed by reading tests. However, its scope was limited to determining the effect of pre-reading activities on the reading comprehension outcomes in the language classroom. As for validity of the tests or exercises, the study assumed that professional teachers with at least a year of teaching experience could prepare or select valid and reliable exercises; and, that the comprehension exercises were drawn from course books recommended by the MOE.

2.7 Related Studies

Wanjohi (2014, p.36) says that the "review of related literature remains a core component of any scientific study". This is because such a review is a stepping stone towards achievement of the study objectives; provides a solid background to back one's investigation by giving justification as to how one's research fits into the existing body of knowledge; and, to avoid duplication, identify gaps in other studies with the goal of filling them, borrow from the research design and methodology used to investigate that particular problem (Wanjohi, 2014). The present study referred to several other studies with a view to highlight the topics, study designs, findings and gaps that need to be addressed.

A study conducted by Zarfsaz and Yeganehpour (2021) on the effect of timing of pre-reading activities on High Intermediate English Foreign Language (EFL) learners reading comprehension aimed at comparing EFL learners' reading comprehension skills before and after the execution of timing different types of pre-reading activities. The study found that after applying the pre-reading activities, the participants of the experimental group performed better in the post-test than the participants in the control group who were asked to start the reading task immediately after the pre-reading activities. Both groups showed improvement in the post-test, probably due to the pre-reading activities, though the superior performance of the experimental group led the researchers to conclude that timing these activities can help learners to process information before applying it. Both this study and the present one included vocabulary pre-reading activities and brainstorming. However, the performance of learners in reading tasks as indicated in Zarfsaz and Yeganehpour's (2021) study may be as a result of either the pre-reading activities themselves or timing of these activities. The present study addressed gaps such as geographical (used ESL learners in Kenya), methodological (used concurrent parallel mixed methods design) and knowledge – language teachers were asked to allocate some time for the experimental groups to participate in the pre-reading activities but not for the control group. Then after administering a common reading comprehension test for both experimental and control groups during the same lesson, the results of the test for all the groups were compared to precisely determine the effect of the pre-reading activities on performance of learners in the reading test. Indeed, the study found that the use of pre-reading activities had a significant effect on performance of ESL leaners in reading comprehension test.

A study by Erten and Karakas (2007) on the topic *"Understanding the Divergent Inferences of Reading Activities on the Comprehension of Short Stories"* sought to understand how the use of different reading activities affects readers' comprehension of short stories. The experimental and control groups completed different sets of activities on the same short story. Forty-Seven students with an advanced level of English proficiency participated in the study where a quasi – experimental research design was pursued. The experimental group was given a set of activities comprising previewing, predicting key words, scanning, skimming, clarifying, summarizing, question and answer and drawing conclusions; while the control group did activities including brainstorming, predicting, surveying, reciprocal teaching, evaluating, inferring, re-reading, thinking aloud, discussion and summarizing activities.

 A post-test measured both literal comprehension and evaluation of the textual information. Statistical analysis revealed that the experimental group out-performed the control group on literal comprehension while the control group did better on evaluation questions, implying a differential influence of activities on different types of comprehension. The study suggested that reading teachers need to be sensitive to the requirements of comprehension tasks in their selection of reading activities. The Present study was related to that of Erten and Karakas (2007) in terms of its focus on effect of pre-reading activities on reading comprehension. Erten and Karakas assessed the influence of the reading activities on different types of comprehension. The present study, however, filled a knowledge gap by intensively pursuing one form of reading comprehension, measured by learner achievement in a reading test. To do this, the present study focused on only two pre-reading activities; pre-teaching key vocabulary in a reading task and brainstorming, with a view to determine their effect on the performance in the reading comprehension task. The control group did not use

any pre-reading activities. So, the current study sought to reveal the effect of particular pre-reading activities on a specific reading comprehension test using learners in different schools.

A research conducted by Gichaga (1986) on "The Factors that Influence Secondary School Learners' Performance in the English Language at Kenya Certificate of Secondary Examination level in Two Different Districts" showed that reading comprehension was amongst the major challenges to learners. Several years after Gichaga's study, KNEC reports indicate that learners still have challenges dealing with comprehension. Ellis and Coady as quoted in Athiemoolam and Kibui (2012) point out that in second language learning, formal instruction for vocabulary acquisition and comprehension is beneficial, and suggest a mixed approach to vocabulary instruction in which basic vocabulary is explicitly taught along with strategies that will allow learners to deal effectively with less frequent vocabulary than they encounter in context, so that such vocabulary can be learned when needed. Athiemoolam and Kibui (2012) add that currently, in the Kenyan context, such formal instruction is not possible due to the implementation of the "integrated approach" which essentially reduces the time available for formal instruction in vocabulary and reading comprehension skills.

The present study acknowledged the issues and challenges raised by the scholars above but contended that there was a knowledge gap in so far as investigations into the effect of pre-reading activities on reading comprehension outcomes in the language classrooms in Kenya was concerned. Pre-reading activities are handled as pedagogical strategies, and this study intended to determine their effect on reading comprehension performance. The study specifically investigated whether activation of

learners' background or prior knowledge through the use of pre-teaching vocabulary and brainstorming had a corresponding effect on the learners' performance in reading comprehension examinations.

From a study titled 'Improving Reading Comprehension of Iranian High School Students via Graphic Organizers" by Hashemian, Jam and Naraki (2014), a comparison was drawn with the current study. Graphic organizers are visual displays that teachers use to organize information in a way that makes the information easier to understand and learn. They are also known as semantic map, structural overview, web, concept map, semantic organizer story map etc. In the said study, form 3 students were investigated using an experimental design. The experimental Group (A) received the graphic organizers intervention while the control group (B) received traditional reading instruction. After an 8-week treatment, both groups were given the reading comprehension test as a post-test. Statistical analysis showed a significant difference in the reading comprehension of the group in favour of the experimental group. Therefore, it was established that use of graphic organizes had positive effects on the ESL learners' reading comprehension. The current also dealt with selected pre-reading activities, namely pre-teaching vocabulary and brainstorming and found that they had a significant effect on reading comprehension performance. However, it focused on the local, Kenyan setting thus filling the geographical gap presented in Hashemian, Jam and Naraki's study. The findings of these studies are supported by Maretnowati (2014, p. 16) who says that "Before students read any text, teachers can direct their attention to how a text is organized. It could be a way to help students comprehend the text clearly".

In a study by Carder (2011) on "Effects of Reading Comprehension Strategies on Achievement for English Learners (ELs)" it was stated that vocabulary knowledge is so closely related to reading comprehension and so ELs must develop a broad vocabulary base in order to be effective readers in English. Additionally, a study conducted by Carlo et al (2004) on the impact of English vocabulary enrichment intervention on outcomes for ELs found that a challenging curriculum based on teaching academic words, strategies for inferring word meaning from context, and tools for analyzing cross-linguistic aspects of word meanings did improve the performance of ELs. Research in reading has shown that reading comprehension for ELs is interrupted when they encounter too many unknown words. It is believed that teachers must directly teach vocabulary and provide opportunities for students to demonstrate vocabulary use both orally and in writing. Wallace (2007) also recommends continued attention toward vocabulary development and the important link between vocabulary and reading comprehension. Perfetti & Stafura (2014) in Main, Hill and Paolino (2023) say that using a range of reading materials as the basis for instruction develops students' vocabulary and general knowledge, which, in turn, contributes to reading comprehension. The current study focused on pre-teaching vocabulary and brainstorming as pedagogical strategies in Kenyan secondary ESL classrooms, and found that these strategies were helpful at activating learners background knowledge, and improving text comprehension thus a significant effect on learners' performance in reading comprehension tests. By expanding the scope of strategies for teaching reading comprehension, the current study addressed a knowledge gap.

A study by Tran (2014) sought to investigate the effect of brainstorming techniques on English Foreign Language (EFL) Vietnamese learners' reading comprehension.

The study involved a treatment group and a control group, both of which were following an English course at a language centre in Vietnam. Comparisons between the two groups' average scores and their comprehension improvement during the course showed that the treatment group outperformed the control group and confirmed that brainstorming has a positive impact on EFL Vietnamese learners' reading comprehension. This study also involves the use of brainstorming as a teaching strategy among ESL learners. The language classrooms where this strategy was used registered superior mean scores than the control classes. With its focus on Kenyan learners, the geographical gap is addressed.

A study by Wafula (2017) investigated Extensive Reading and its Influence on Language Skills among Learners of English Language in Secondary Schools in Kenya. Like the present study, the target population in Wafula's study comprised learners and teachers of English in secondary schools. Another similarity is established in the instruments of data collection: Wafula (2017) used tests as a data collection tool. She used vocabulary, comprehension, grammar, writing and oral skills tests to collect data on the language skills in English. However, the present study investigated the effect of two pre-reading activities on performance in reading comprehension tests: pre-teaching vocabulary and brainstorming. The researcher administered a single reading comprehension test that included aspects of vocabulary, comprehension and grammar, in line with KNEC structure of *English Paper Two*, Question 1 (Conventional Unseen Excerpt).

The research findings in Wafula's study revealed that students hardly read extensively, schools lacked organized extensive reading programs and activities, as well as materials of interest for learners. The study concluded that drills were the

main source of language input to learners; and recommended that MOE should come up with policies that promote extensive reading in schools. The present study recognized that extensive reading was necessary in building background knowledge. However, the objective of the present study was to establish if pre-reading activities, specifically pre-teaching vocabulary and brainstorming, which are presumed to activate background knowledge and hence comprehension resulted into enhanced achievement in reading comprehension tasks. In essence, Wafula's study dealt with the effect of activities 'during or while reading', but the current study dealt with effect of activities 'before reading' on performance of reading comprehension tests, thus it addressed a knowledge gap.

Okwako's (2011) study on "Enhancing the Development of Vocabulary Knowledge in English as a Second Language in Kenya" selected comprehension passages from texts used in the classroom. This study was based in Vihiga District of Vihiga County and investigated acquisition of vocabulary knowledge using pre- and post-comprehension tests, multi-tasks teaching approach on vocabulary reading among secondary school students in Kenya. The pre-test was administered before the experiment; the experimental groups were given a reading comprehension as treatment. The learners were expected to find meanings of words selected by the researcher. With a sample of 76 students, this quasi-experimental study established the effect of the approach of teaching on the amount of vocabulary acquisition. The test items were based on various reading comprehension passages. The study concluded that learners learned a lot of vocabulary when they interacted with more reading comprehension passages.

Okwako's study also established that students who scored highly in the vocabulary test were exposed to a variety of reading material which helped them acquire a wide range of vocabulary. The current study similarly argued that sufficient knowledge of relevant vocabulary in a reading material was absolutely useful in activating schemata necessary for comprehension. However, the study considered pre-teaching of key vocabulary in a comprehension passage as a pedagogical strategy in the ESL classrooms. The current study addressed a methodological gap in terms of the variations in data collection techniques and applicable research designs. By comparing the effect of pre-teaching vocabulary and brainstorming on reading comprehension achievement the current study filled a knowledge gap that was not addressed by Okwako's study.

A study by Maingi (2015) on language teachers' perceptions and practices in enhancing learners' strategy use for reading proficiency in selected secondary schools in Kenya sought to examine how teachers' perceptions about use of strategies in reading are reflected in their classroom practices. The study posited that "identification of classroom activity, the level of engagement of the learners and instructional goal for the activity depend on the teachers' perceptions about reading and strategy use instruction" (Maingi 2015, p. 99). The study found that knowledge of strategies and techniques was useful when engaging learners in reading; it was the responsibility of the teachers to teach learners to select strategies appropriate for different reading activities which could be used to facilitate reading comprehension. Of particular interest to the present study was that Maingi (2015) also endeavoured to establish the use of pre-reading instructional strategies. These were "those strategies that learners were taught to use to get ready to read a text selection" (Maingi, 2015, p.161). The study found that understanding of reading strategies used before reading

helped learners create a mental alignment that is useful for anticipating the meaning of a text selected before one started reading. The strategies used before reading that Maingi (2015) refers to here are what the current study described as pre-reading activities. Maingi's study addressed teachers' perceptions and practices that enhanced learners' use of strategy for reading proficiency. It left a knowledge gap on the effect of strategy use on reading comprehension performance. The current study filled this gap by investigating the effect of pre-teaching vocabulary and brainstorming on the performance of ESL learners in reading comprehension tasks in the language classroom.

2.8 Chapter Summary

This study intended to determine whether pre-reading activities were crucial in the teaching of reading comprehension to ESL learners in secondary schools in Kenya. Reviewed literature largely revealed that pre-reading activities generally played a facilitative role in enhancing reading comprehension that was certainly required if an improvement in the performance of comprehension tasks were to be realized. This study endeavoured to add new knowledge by specifically exploring whether pre-teaching vocabulary and brainstorming have a significant impact on the performance of ESL learners in reading comprehension tests or exercises. Many scholars agree that pre-reading activities activate background knowledge to enable the reader integrate new information into the relevant pre-existing information. This ideally improves comprehension that is necessary for enhanced reading comprehension outcomes. The study findings would therefore inform pedagogical choices geared towards enhancing reading comprehension performance of ESL learners in Kenyan secondary schools. The next chapter discussed the research design and methodology.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter discusses the research design and methodology that was used in this study. The chapter presented information about the philosophical paradigm adopted in the study, the research design, the study area, the target population, sample and sampling techniques, instruments of data collection, the piloting of instruments, validity and reliability of the data collection instruments, data collection procedures, data analysis, ethical issues about the study, and the chapter summary.

3.2 The Philosophical Paradigm of the Study

Mason in Jwan and Ong'ondo (2011) notes that it is advisable that researchers in social sciences state their philosophical stances so that their studies can be read against particular paradigms or orientations. This was a mixed methods research (MMR) since both qualitative and quantitative data were collected and analyzed. Therefore, the study adopted the pragmatic philosophical paradigm. Mitchell (2018) as cited by Maarouf (2019, p. 5) has noted that "pragmatism is considered to be 'the philosophical partner' of the mixed research approach as its underlying assumptions provide the essence of mixing research methods". Cherryholmes (1997) in Creswell (2014) notes that this paradigm originated from the works of Peirce, James, Mead and Dewey. This philosophical paradigm provides for multiple methods of data collection and analysis. Patton notes in Creswell (2014) that this worldview is concerned with applications - what works, and finds solutions to problems. It has been observed by Morgan, Patton, Tashakkori and Teddlie in Creswell (2014, p. 39) that "as a philosophical underpinning for mixed methods studies, the pragmatic worldview is

important for focusing attention on the research problem in social science research and then using pluralistic approaches to derive knowledge about the problem."

Gorard and Taylor (2004, p.7) state that "the combination of data derived through the use of different methods has been identified by a variety of authorities as a key element in the improvement of social science, including education research." It is further argued that "combined research often has greater impact because figures can be very persuasive to policy-makers whereas stories are more easily remembered and repeated by them for illustrative purposes" (Gorard & Taylor, 2004, p.7). NRC in Gorard and Taylor (2004, p.7) argues that "research claims are stronger when based on a variety of methods". Still, Perlesz and Lindsay in Gorard and Taylor (2004, p.43) posit that:

> Various reasons have been advanced for the use of combined methods triangulation, including increasing the concurrent, convergent and construct validity of research, the ability to enhance the trust worthiness of an analysis by a fuller, more rounded account, reducing bias, compensating for the weaknesses of one method through the strength of another, and in testing hypotheses.

Creswell and Creswell (2018) observe that pragmatism provides the following philosophical basis for research: Inquirers draw liberally from both quantitative and qualitative assumptions when they engage in their research; researchers have a freedom of choice- they can choose the methods, techniques and procedures of research that best meet their needs and purposes; pragmatists do not see the world as an absolute unity. So, mixed methods researchers look to many approaches for collecting and analyzing data rather than subscribing to only one way, that is, either quantitative or qualitative; truth is what works at the time. It is not based on a duality between reality independent of the mind or within the mind. So, in mixed methods research, investigators use both quantitative and qualitative data because they work to

provide the best understanding of a research problem; pragmatist researchers focus on the *what* and *how* to research based on the intended consequences. Mixed methods researchers need to establish a purpose for their mixing, a rationale for the reasons why quantitative and qualitative data need to be mixed in the first place; for the mixed researcher, pragmatism therefore opens the door to multiple methods, different worldviews and different assumptions, as well as different forms of data collection and analysis.

The pragmatic worldview was therefore apt for this study since more than one type of data were collected using multiple methods, analyzed and presented variously.

3.3 Research Design

This study sought to apply a research design that was suitable for the mixed methods approach. The study aimed at concurrently collecting both quantitative data from the comprehension test, and qualitative data from the observation schedules. Therefore, the study applied the convergent parallel mixed method because it "is a design where a researcher collects both quantitative and qualitative data at the same time and then integrates the overall results to get comprehensive analysis of the research problem" (Barnes, 2019; Creswell, 2014 as cited by Maarouf, 2019, p. 4).

Barnes (2019) in Maarouf (2019) observes that the convergent parallel mixed methods design can take two forms: the concurrent triangulation design, whereby two research methods are used – one being applied to confirm or check on the findings of the other; and the concurrent nested design, where one main research method is used, while the other method is used merely for purposes of answering a different research question or focusing on a minor group. The study used the concurrent triangulation design. The quantitative data derived from the comprehension test were used to assess

the effect of pre-reading activities on performance of learners in a reading comprehension test, while the qualitative data from observation schedules were used to corroborate the quantitative findings. Creswell and Pablo-Clark (2011) say that in this design, the researcher concurrently conducts the quantitative and qualitative elements in the same phase of the research process, weighs the methods equally, analyses the two components independently, and interprets the results together. The study discerned quantitative and qualitative objectives, then respectively and distinctively collected and analyzed the data using appropriate methods. The researcher then converged the findings during interpretation in order to provide a comprehensive understanding of the research problem. In this approach, "the investigator typically collects both forms of data at roughly the same time and then integrates the information in the interpretation of the overall results" (Creswell, 2014, p.44).

3.4 The Study Location

The study was based in Kakamega Central Sub County of Kakamega County, Kenya. This study site was largely cosmopolitan, comprising a population that was a blend of many Kenyan communities. It also had within it all the possible school types as classified by the Ministry of Education in Kenya. This was important in raising a sample that was representative enough as to capture the salient characteristics of the variables under investigation, hence generalizability of the study findings. The study area covered 244.5 sq. km and a total population of 160,150 people, according to the 2010 Kenya National Bureau of Statistics population census. The density of people was therefore approximately 655 persons per sq. km.

3.5 The Study Population

Walliman (2011, p.94) says:

> The term population as used in research does not necessarily mean a
> number of people, it is a collective term used to describe the total
> quantity of things (or cases) of the type which are the subject of your
> study. So, a population can consist of certain types of objects,
> organizations, people or even events. Within this population, there
> will probably be only certain groups that will be of interest to your
> study, for instance, of all school buildings only those in cities, or of
> all limited companies, only small to medium sized companies. This
> selected category is your sampling frame. It is from this sampling
> frame that the sample is selected.

Figure 3.1 shows the frame in relation to population and sample.
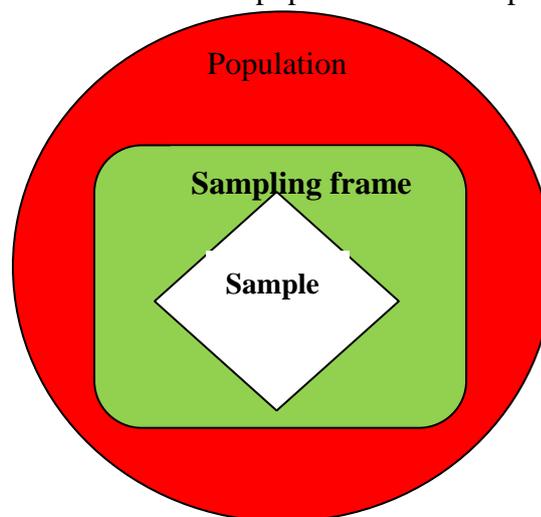
**Figure 3.1: The Sampling Frame in Relation to Population and Sample
(Source: Walliman, 2011, p.94)**

Kakamega Central Sub County had a total of 28 secondary schools at the time of data
collection: 23 were public and 5 were private. The target population comprised the 28
secondary schools, 14346 students and 700 teachers in Kakamega Central Sub
County. The 23 public schools constituted the sampling frame for this study and
comprised a variety of schools that represented almost all the categories of public
schools in Kenya. The sample was derived from these public schools for purposes of
homogeneity.

It has been argued that "in order to apply a sampling technique, it is necessary to define the population (also called the target population, universe or sampling frame) from which the sample is to be drawn" (Blaikie, 2003, p.160). Blaikie (2003) further states that a population is an aggregate of all units or cases that conform to some designated criteria. This scholar adds that "there seems to be a common belief that samples should normally be about 10% of the population. (Though) this is not the rule of thumb that should be used" (Blaikie, 2003, p. 166). The unit of analysis in this study was Form Two level secondary school students in Kenya. On average, the schools in the study area had 45 students in each class (stream), according to statistics at the office of the County Director of Education (CDE), Kakamega. The study area had categories of public schools that represented the various types of schools in the country. Table 3.1 shows the type and number of schools in the study area. There were no schools in the extra county category within Kakamega Central Sub County at the time of data collection.

Table 3.1: Categories of Schools in Kakamega Central Sub County

		Classification by Gender		
	Boys	Girls	Mixed	
Classification by Status				**Total**
National	1	0	0	**1**
Extra County	0	0	0	**0**
County	1	3	0	**4**
Sub County	0	3	15	**18**
Private	0	1	4	**5**
Total	**2**	**7**	**19**	**28**

Source: Kakamega County Education Office (2019)

Table 3.2 shows the total population of students and teachers in each of the categorized institutions in Kakamega Central Sub County.

Table 3.2: Target Population of students and Teachers in Kakamega Central Sub County

Classification by Status	Population of students and teachers	
	Students	*Teachers*
National	2235	90
Extra County	0	0
County	2818	157
Sub County	8289	409
Private	1004	44
Total	**14346**	**700**

Source: Kakamega County Education Office (2019)

3.6 The Study Sample and Sampling Procedure

This study made use of stratified and purposive sampling techniques to select 852 Form Two students and 21 language teachers from a sample size of 7 schools. Stratification is defined as "the grouping of the units composing a population into homogeneous groups (or strata) before sampling" (Babbie, 2008, p.227). This study stratified schools into relevant strata on the basis of variables such as school status and gender. Stratification was justified since some variables such as school type and gender had been built into the study.

According to Borg and Gall (2003), 30 % of the total population is representative. So, the study purposively selected seven (7) schools being approximately 30% of all the public secondary schools in the study area. Since the population of public schools in the study location comprised different types of schools, the study proportionately allocated the 30% samples to the naturally occurring groups (Kothari, 2014). Thus, two (2) boys' schools – national and county; two (2) County girls' schools and four (4) mixed sub-county schools were purposively selected. Wanjohi (2014) says that the main objective of purposive sampling is to arrive at a sample that can adequately

answer the research objectives. The researcher believed that the seven schools that were purposively selected had the characteristics that obtained in the other schools in the study area, and sufficient enough to address the study objectives. Purposive sampling was also used to select all the Form Two language teachers and learners in the language classrooms that were selected for this study.

Purposive sampling was again used to select three classes from each of the seven schools, being two experimental and one control group. The available records at the local Ministry of Education office had earlier shown that almost every school in the study area had more than three classrooms (otherwise known as streams) at Form Two Level, with an average population of *45* students in each classroom. These numbers were attributed to the free and compulsory basic education policy in Kenya. During actual data collection in the field, however, the study found that one of the seven schools had only two streams at Form Two level with only thirty students in each classroom. Therefore, a third classroom was created and some learners moved and allocated to the new classroom, with the assistance of the language teachers. Therefore, with three (3) language classrooms selected in each of the seven (7) schools in the sample, a total of twenty-one (21) language classrooms participated in the study. These classrooms were purposively assigned to either vocabulary pre-teaching, brainstorming or control groups.

During the actual field work, the study found that the number of ESL learners in each of the 21 classrooms selected and/or created for the study ranged from as few as 20 to as many as 62, averaging about 41 learners per classroom. So, on average, there was theoretically a total of 861 learners from the 21 classrooms selected for the study.

Therefore, the study purposively sampled seven (7) schools out of a population of 28 secondary schools in the study site; three Form Two language classrooms in each sampled school, assigned to either the experimental groups or the control one. A similar number of language teachers per sampled school were purposively selected. Therefore, a total of 7 schools; 21 language classrooms; 21 language teachers, and approximately 861 learners participated in the study.

3.7 Data Collection Instruments

Data was collected by triangulating tools. Bryman (2001) says that triangulation is a critical concept in research, education and life. He says it "refers to the use of more than one approach to the investigation of a research question in order to enhance confidence in the ensuing findings" (Bryman, 2001, p.1). The purpose of using a variety of tools was to compare and validate data from the different sources. Bowen (2009) observes that the purpose of triangulating (instruments) is to provide a confluence of evidence that breeds credibility. In terms of research instruments, Denzin (1970) and, Denzin and Lincoln (1998) identify methodological triangulation. This type of triangulation refers to the use of more than one method for gathering data (Denzin, 1970; Denzin & Lincoln, 1998). It has also been noted that "it is common for researchers to use more than one method of data collection…Most research projects in the social sciences are, therefore, in a general sense, multi-method" (Blaxter, Hughes & Tight, 2010, p.205). This study collected both quantitative and qualitative data using the following tools:

a) Pre-teaching session

b) An observation schedule

c) A researcher-made comprehension test

This triangulation of data collection instruments and types of data was useful in corroborating and validating information from the two sources and providing an opportunity of explaining any possible variations in the findings.

3.7.1 Qualitative Data Collection Instruments

To collect qualitative data, the study used a semi-structured observation schedule (Appendix 6). This instrument was used to record data on pre-teaching sessions in the experimental classrooms. The pre-teaching sessions involved two different pre-reading activities, namely: pre-teaching vocabulary and brainstorming. The researcher provided teachers the guidelines for pre-teaching vocabulary and brainstorming for purposes of reducing possible variations among teachers' pedagogical practices during the reading comprehension lessons. The findings of observations from pre-teaching sessions were used to, first, establish differences in the nature of teaching and learning processes between classrooms exposed to vocabulary pre-teaching and those not exposed to any pre-reading activities. Then, the findings were also used to examine differences in teaching and learning processes in classrooms exposed to brainstorming and those that are not exposed to any pre-reading activities.

Blaxter, Hughes and Tight (2010) say that the observation method involves the researcher in watching, recording and analyzing events of interest. It is further observed that "observation is (also) useful in social sciences where people and their activities are studied" (Walliman, 2011, p.101). Observation is also considered as the "systematic description of events, behaviours, and artefacts in social setting chosen for the study" (Marshall & Rossman, 1989, p.79). Demunck and Sobo (1998) add that observation allows for the collection of richly detailed data and provides opportunities for viewing or participating in unscheduled events. In this study, both the

experimental and control groups were observed by the researcher to analyze and discuss the differences in pre-teaching sessions in language classrooms where either pre-teaching vocabulary, brainstorming or no any pre-reading activities were used. Discussions on nature of teaching and learning processes mainly included aspects of ESL teacher manipulation of pre-reading, and individual differences among teachers and learners (Appendix 6).

Some specific details on teacher manipulation of pre-reading activity that were observed included: time taken to conduct each specified pre-reading activity in the experimental classrooms, as opposed to classrooms where no pre-reading activities were used; adherence to the guidelines of pre-teaching vocabulary such as selection of key vocabulary: pre-testing of vocabulary, presentation of each word, teaching words explicitly etcetera.; adherence to brainstorming guidelines such as generation of a question or topic, encouraging the discussions, setting a time limit, teacher facilitation of session etcetera. Aspects of individual differences that were observed during the pre-teaching sessions included learning and teaching styles evident in the ESL reading classroom; instructional strategies; learner motivation and other affective factors; and, influence of gender and type of school.

3.7.2 Quantitative Data Collection Instrument

The study made use of a researcher-made comprehension test to collect quantitative data. Ary, Jacobs & Sorensen (2010, p. 203) say that "the advantage of researcher-made test is that it can be tailored to be content specific; that is, it will match more closely to the content that was covered in the classroom or in the research study." This kind of test may focus sufficiently on particular skills the researcher wishes to measure (Ary, Jacobs & Sorensen, 2010). It is argued that "In tests, researchers have

at their disposal a powerful method of data collection, an impressive array of tests for gathering data of a numerical rather than verbal kind" (Cohen, Manion & Morrison, 2007, p.416). According to the APA as cited in Cohen et al (2007, p.417), "the tests devised by the researcher are an alternative to published tests that do not demonstrate fitness for purpose." It is further argued that such "homegrown" tests will be tailored to the local and institutional context very tightly, that is, the purposes, objectives and content of the test will be deliberately fitted to the specific needs of the researcher in a specific, given context (Cohen et al, 2007). In any case, teachers test what they have derived from the syllabus, schemed or planned for and taught.

Using intense document analysis, several reading materials were analyzed for appropriateness using content analysis procedures. The revised English language syllabus in Kenya (KICD, 2006) suggests that teachers should cover contemporary and emerging issues during extensive reading lessons. Such emerging topics include environment, health, culture, security, technology, gender etcetera. A lot of these topics can be accessed in the students' course books as well as other sources such as newspaper columns and magazines. To avoid halo effect arising from students' prior exposure to a passage in the learners' course books, and to enhance validity of the reading test, the researcher looked at a variety of alternative reading materials. Therefore, in consultation with the study supervisors, the researcher selected an article titled *Reflections on a more gender equal society* adapted from the Saturday Nation Newspaper, December 22, 2018. It pertained the gender issue, one of the contemporary topics suggested by KICD (2006).

The researcher then prepared a reading comprehension test (Appendix 2) in consultation with experts in the field and study supervisors to ensure content validity.

The test involved reading comprehension questions prepared in line with Bloom's taxonomy as shown in the content analysis tool for assessing the cognitive level of the task (Appendix 3b). To score and assess learners' performance, a content analysis tool (Appendix 3a) was developed by the researcher in conjunction with colleagues in the field who were trained KNEC English Paper 101/2 examiners, and in consultation with the study supervisors. The researcher administered the reading comprehension test (Appendix 2) to both the experimental and control groups. The study assumed that the learners in each of the schools in the sample were, on average, of similar linguistic ability by virtue of the nature of their respective schools and entry behaviour.

The reading comprehension test (Appendix 2) was given to: (a) find out the difference in performance between learners that used pre-teaching vocabulary and brainstorming; (b) determine if pre-teaching vocabulary and brainstorming had a significant effect on reading comprehension achievement; and, (c) compare the impact of pre-teaching vocabulary, and brainstorming on achievement in reading comprehension with a view to determine which of the two pre-reading activities had a more significant effect on the performance of Kenyan ESL learners in reading comprehension tasks. Quantitative (parametric) data collected from the learners' scores were used to test the research hypotheses.

3.8 Validity and Reliability of Data Collection Instruments

The study ensured the research instruments tested what they were supposed to test, and that they yielded consistent results when they were used with various subjects. Therefore, the tools were piloted so as to modify the questions in view of the responses received from the pilot study. This ensured reliability of the tools.

3.8.1 Pilot Study

Piloting is the process whereby researchers try out the research techniques and methods which they have in mind, see how the techniques work in practice, and, if necessary, modify their plans accordingly (Blaxter, Hughes & Tight, 2010). This is because, "things never work quite the way you envisage, even if you have done them many times before, and they have a nasty habit of turning out very differently from how you expected…" (Blaxter, et al, 2010, p.139). Wanjohi (2014) says that piloting of instruments is establishing if the instruments work in the real world by trying them first with a few selected people. The purpose of pilot testing is to ensure that everyone in the sample understands the questions. It is done by addressing validity and reliability of the instruments (Wanjohi, 2014).

The pilot study was conducted to test the reliability and validity of the research instruments. The pilot study, conducted in Sabatia Sub-County of Vihiga County, investigated the public secondary schools in the area by purposively selecting two schools for trying out the data collection tools. The statistics at the Sabatia Sub County Education office showed that most schools had more than two classrooms (streams) with a population of 40 – 60 students in each classroom. During the pilot however, the study found that on average, there were 45 students in each of the language classrooms. So, all the students in the selected classrooms were purposively incorporated in the study, to control for Hawthorne effect.

Still, the study purposively sampled out three Form Two language classes per school and assigned them to the two experimental groups and one control group respectively. The respective language teachers in the three selected classes and all the language learners in those classes were also purposively incorporated into the study. Therefore,

a total of two schools, six language classes, six language teachers, and a cumulative 270 ESL learners from all the pilot classrooms were involved in the pilot study. The pilot schools had similar characteristics as the research schools. Choosing a pilot location that was far from the actual study location was meant to eliminate halo effect, which would otherwise be a threat to the validity of the instruments in this study.

During the pilot study, an observation checklist was administered during a reading comprehension pre-teaching session to ensure that only the experimental groups (classrooms) got treatment by way of exposure to pre-teaching vocabulary and brainstorming respectively, while the control group received teaching without any pre-reading activities. After the pre-teaching session, a reading comprehension test was administered to both the experimental and control groups to determine the effect of the treatment (pre-teaching vocabulary and brainstorming) on the ESL learners' performance in the reading comprehension test.

3.8.2 Validity of Data Collection Instruments

Onwuegbuzie and Johnson (2006) in Cohen, Manion and Morrison (2018) argue that the term 'validity' should be replaced by 'legitimation' in Mixed Methods Research (MMR). This 'legitimation' occurs in different forms, and it is an attempt to overcome problems in MMR. These include problems of:

> representation (using largely or only words and pictures to catch the dynamics of lived experiences and unfolding, emergent situations); legitimation (ensuring that the results are dependable, credible, transferable, plausible, confirmable and trustworthy); integration (using and combining quantitative and qualitative methods, each with their own, sometimes antagonistic canons of validity, e.g. quantitative data may use large random samples whilst qualitative data may use small, purposive samples, and yet they may be placed on an equal footing) (Cohen, Manion & Morrison, 2018, p. 250).

Construct and content validity of the data collection instruments was ensured through piloting and consultations with supervisors and experts in the field. The study minimized threats to validity by addressing Hawthorne effect during data collection; choosing appropriate methodology, selecting appropriate sample and instruments at the design stage; avoiding selective use of data, as well as Type I and Type II errors during data analysis; and, making claims that could be sustained by the data during reporting stage (Cohen et al, 2018).

 After the pilot study, it was apparent that almost all students had difficulty in handling **Question ix** in the Comprehension Test (Appendix 2):

Briefly explain the importance of using the image of "building blocks" in this passage. (3 marks)

 The researcher dropped this question since it seemed way above the level of Form Two learners, and was a potential threat to the validity of the instrument. Meanwhile, the Three (3) marks allocated to this question were reallocated to **Questions i**, **ii**, and **vii**. In fact, **Question vii** was reworked by adding a tag question and enhancing the marks from **2** to **3**. **Question iii** was reviewed such that the fourth mark was reallocated to **Question viii**. One lexical item, **'supersedes'**, was dropped in **Question xi** and the mark for it reallocated to **Question x**. Ideally, the Test was left with a total of ten (10) questions, each marked out of three (3) marks, totaling to thirty (30) marks. The effect of these changes was an improved content validity with an even number of questions, suitable for achieving an enhanced value for Cronbach Alpha coefficient.

3.8.3 Reliability of Data Collection Instruments

Reliability is essentially a synonym for dependability, consistency and replicability over time, over instruments and over groups of respondents (Cohen et al, 2007). A reliable study must demonstrate that if it were to be carried out on a similar group of respondents in a similar context (however defined), then similar results would be found. There are three principal types of reliability: stability, equivalence and internal consistency. Mugenda and Mugenda (2013) say that reliability is a measure of the degree to which a research instrument yields consistent results after repeated trials.

This study was concerned more with stability, which means that a reliable instrument for a piece of research would yield similar data from similar respondents over time. The study achieved this reliability through a split-half method during the pilot study, "which involves splitting the test in half (odds and evens) and correlating scores on one half of the test with scores on the other half of the test. The correlation between the two sets of scores is used to estimate the reliability of the instrument" (Wanjohi, 2014, p.85). Cronbach's alpha reliability coefficient was computed and the correlation coefficient between forms (the two halves) was .838 as seen in the Table 3.3.

Table 3.3: Reliability Statistics

	Part 1	Value	.708
		N of Items	5[a]
	Part 2	Value	.700
Cronbach's Alpha		N of Items	5[b]
Total N of Items			10
Correlation Between Forms			.838
Spearman-Brown	Equal Length Coefficient		.912
	Unequal Length		.912
Guttman Split-Half Coefficient			.910

Source: SPSS Computation
Note:
a. The items are: QTN1, QTN , QTN5, QTN7, and QTN9.
b. The items are: QTN2, QTN4, QTN6, QTN8, and QTN10.

The closer Cronbach's alpha coefficient is to 1.0 the greater the reliability of items in the instrument. George and Mallery in Wanjohi (2014, p. 85) propose the following rule of thumb is provided: "_> .9 – Excellent; _> .8 – Good; _> .7 - Acceptable; _> .6 - Questionable; _> .5 - Poor, and _< .5 Unacceptable." So, with a computed Cronbach Alpha of 8.38, the test was determined to be a reliable tool for this study.

3.9 Data Collection Procedures

The researcher sought for a research clearance permit and authorization from the National Commission for Science, Technology and Innovation (NACOSTI) through the Dean, School of Education of Moi University before going to the field to collect data. Then, the head teachers of the schools in which the study was conducted were informed about the planned research in advance, whereupon the schedule of the research activities was agreed upon mutually. The researcher was introduced to the language teachers and their learners, to whom instructions were given on how to handle the instruments and the process. To start with, the researcher gave out pre-teaching guidelines to language teachers in the selected research classrooms to enable them plan and conduct pre-teaching sessions according to set criteria. Then, the researcher personally observed the pre-teaching sessions in the language classrooms. After the observations of the pre-teaching sessions in each experimental classroom, a reading comprehension test was finally administered and supervised by the language teacher and the researcher. The student scripts were collected after forty minutes of the test duration, for marking and determination of performance by the researcher.

3.10 Data Analysis

Ader (2018) says that data analysis is a process of inspecting, cleaning, transforming and modelling data with the goal of underlining essential information, suggesting

conclusions, and supporting decision making. This process follows soon after data collection. This study adopted a mixed methods approach; hence, data was analyzed using both quantitative and qualitative data analysis techniques. Parametric (numeric) data were collected from comprehension test results for both experimental and control groups.

3.10.1 Analysis of Qualitative Data

On the other hand, qualitative data derived from discussions and field notes on the classroom observation schedules was subjected to qualitative content analysis. Weber (1990) in Cohen, Manion and Morrison (2007, p. 475) posits that qualitative "content analysis is a process by which the 'many words of texts are classified into much fewer categories'… derived from theoretical constructs or areas of interest devised in advance of the analysis…" It entails examination and verification of written data. Krippendorp (2004) in Cohen, Manion and Morrison (2007) define it as a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use. In this case, texts are defined as any written communicative materials which are intended to be read, interpreted and understood by people other than the analysts (Krippendorp in Cohen et al., 2007). Therefore, the researcher carefully scrutinized the test content paying attention to aspects of knowledge and comprehension appropriate for the Form Two level as provided for in the Secondary English language syllabus in Kenya. Qualitative content analysis was also used to itemize aspects to be observed during the pre-teaching sessions (Appendix 6), to correspond with the guidelines for vocabulary pre-teaching and brainstorming (Appendices 4 and 5).

The data was then coded. Stake (1999) says that data coding in QDA is done in order to reduce a large volume of raw data into homogeneous groups (themes) to get meaningful relationship. The qualitative data were then analyzed using thematic analysis (TA) and presented through narrations. Braun and Clarke (2012) say that TA may be inductive (bottom-up) or deductive (top-down). This study used the deductive approach since the researcher brought to the data a list of preconceived themes that were derived from guidelines for pre-teaching vocabulary and brainstorming. Having designed an observation schedule with constructs extracted from the guidelines, the researcher then reported the semantic meanings (explicit content) of the data, and not the implied (latent) meanings. The themes were aligned to the stated study objectives.

3.10.2 Analysis of Quantitative Data

These quantitative data were cleaned by doing quantitative content analysis to remove ambiguous (unacceptable) elements. A content analysis tool 'Part A' (Appendix 3a) and 'Part B' (Appendix 3b) were developed by the researcher to respectively determine the scoring of the test, and show distribution of questions in accordance with Blooms taxonomy. Then, coding of data was done to translate the collected data into values suitable for computer entry to run SPSS program (Coolican, 2024). Thereafter, the quantitative data were analyzed using descriptive statistics and inferential statistics whereby One-Way Analysis of Variance (ANOVA) was run on SPSS version 20.0 at a significance level of 0.05 and presented using ANOVA tables. This was done so as to compare the means of the three groups and to test the study hypotheses. The statistical test used by the study (ANOVA) was ideal due to the normal distribution of the population, each case in the sample being independent of each other. The groups that were compared were nominal, while the comparisons were made at interval and ratio scales. Also, the data was normally distributed, with

the sets of scores having approximately equal variances (Cohen, Manion & Morrison, 2007). The null hypotheses were tested by determining the F-statistic at 0.05 significance level. The mean scores for students in each one of the experimental groups and the control group were compared to determine the difference in mean performance of ESL learners in the reading test.

In view of the convergent parallel mixed methods approach, two datasets (qualitative and quantitative) were analyzed independent of each other, then the results were merged by comparing or combining them in a discussion. The researcher finally interpreted the results, showing the extent to which, the findings converged or diverged from each other (Creswell & Plano-Clark, 2018). Both the qualitative and quantitative data formed the basis of interpretation and discussion in view of the literature reviewed and in line with the framework for convergent parallel mixed methods design (Creswell & Plano-Clark, 2011) as shown in Figure 3.2.

Step 1	**Design the Quantitative Strand**: • State quantitative research questions and determine the quantitative approach. **Collect the Quantitative Data**: • Obtain permissions. • Identify the quantitative sample. • Collect closed-ended data with instruments.	**Design the Qualitative Strand**: • State qualitative research questions and determine the qualitative approach. **Collect the Qualitative Data**: • Obtain permissions. • Identify the qualitative sample. • Collect open-ended data with protocols.
Step 2	**Analyze the Quantitative Data:** • Analyze the quantitative data using descriptive statistics, inferential statistics, and effect sizes.	**Analyze the Qualitative Data**: • Analyze the qualitative data using procedures of theme development and those specific to the qualitative approach.
Step 3	**Use Strategies to Merge the Two Sets of Results**: • Identify content areas represented in both data sets and compare, contrast, and/or synthesize the results in a discussion or table. • Identify differences within one set of results based on dimensions within the other set and examine the differences within a display organized by the dimensions. • Develop procedures to transform one type of result into the other type of data (e.g., turn themes into counts). Conduct further analyses to relate the transformed data to the other data (e.g., conduct statistical analyses that include the thematic counts).	
Step 4	**Interpret the Merged Results:** • Summarize and interpret the separate results • Discuss to what extent and in what ways results from the two types of data converge, diverge, relate to each other, and/or produce a more complete understanding.	

Figure 3.2: Framework for Convergent Parallel Mixed Methods Design Adapted from Creswell & Plano-Clark (2011)

This triangulation of data analysis techniques has been vouched for by many scholars.

For instance, Perlesz and Lindsay in Gorard and Taylor (2004, p.43) state thus:

> various reasons have been advanced for the use of combined methods triangulation, including increasing concurrent, convergent and construct validity of research, the ability to enhance the trust-worthiness of an analysis by a fuller, more rounded account, reducing bias, compensating for the weaknesses of one method through the strength of another, and in testing hypotheses.

3.11 Ethical Issues about the Study

Cohen, Manion and Morrison (2018, p. 111) say "codes of practice, ethical guidelines, ethics committees and institutional review boards, legislation, regulations and regulatory frameworks may raise issues for consideration and provide advice for researchers on what to do and not to do". These scholars add that ethical issues are not a once-for-all matter; rather, they run through the entire process of research – during data collection and analysis, and reporting results of the research fairly, credibly and accurately. They further posit that a major ethical dilemma for researchers is to balance between demands on them as professionals in pursuit of truth and their subjects' (respondents) rights and values potentially threatened by research. This is what Frankfort-Nachmias and Nachmias (1992) in Cohen et al (2018) call 'cost/benefits' ratio. Many scholars have identified and discussed a number of ethical issues but for purposes of this study, focus was on concerns such as informed consent, access and acceptance, privacy, confidentiality and betrayal (Cohen et al, 2018; Cohen et al, 2007; Babbie, 2008; Creswell, 2014).

To start with, research necessitates obtaining consent and co-operation of subjects who are to assist in investigations. Frankfort-Nachmias and Nachmias in Cohen et al (2007, p.52) "suggest that informed consent is particularly important if participants are going to be exposed to any stress, pain, invasion of privacy..." The researcher informed the participants what the study was about. Then on access and acceptance, Bell in Cohen et al (2007) advises researchers to gain permission early, and with fully informed consent gained, indicate to participants the possible benefits of the research. Therefore, the researcher gained official permission to undertake research in the

schools. Relevant key persons in the institutions where the study was carried out were contacted and their permission sought.

Another ethical issue involves privacy and anonymity. Diener and Crandall in Cohen et al (2007) consider privacy from three perspectives: the sensitivity of the information being given; the setting of the information being observed and dissemination of information. According to the APA (Cohen et al, 2007), religious preferences, sexual practices, income, racial prejudices, intelligence, honesty, courage are more sensitive items than name, rank or serial number. Thus, the greater the sensitivity of information, the more safeguard is called for to protect the privacy of participants. The setting being observed may vary from very private to completely public. Making information public, especially when it concerns participants' personal details calls for privacy. In this study, the researcher concealed identities of individuals and documents utilized in the schools during the research.

Last but not least, researchers should guarantee confidentiality of subjects. Cohen et al (2018) say that the participant's right to privacy is through the promise of confidentiality. As such, though researchers may know who has provided the information or are able to identify participants from the information given, they will in no way make the connection known publicly. The researcher in this study promised respondents that the findings would be used only for purposes of the study.

3.12 Chapter Summary

This chapter mainly focused on the methodology and research design that were used in the study. This was shaped by the philosophical orientation or rationale adopted by the study: the pragmatic paradigm. The instruments that were used to collect data were discussed. The sampling procedures and sample size for this study were also

elaborately discussed. This chapter also presented a preview of how the analysis of both quantitative and qualitative data were analyzed. Ethical issues that pertain to this research were also assessed. In the next chapter, the study findings were presented, analyzed and interpreted.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, INTERPRETATION AND

DISCUSSION

4.1 Introduction

This chapter contains presentation, analysis, interpretation and discussion of study findings. The purpose of this experimental study was to determine the effect of pre-reading activities on the performance in reading comprehension of English Second Language learners in selected public secondary schools in Kenya. Informed by the pragmatist stance, the study applied the mixed research approach to collect both qualitative and quantitative data. This was necessary for addressing the research problem comprehensively and effectively. The study had two qualitative and three quantitative objectives. Presentation, analysis and interpretation of data in this chapter is done on the basis of these objectives, research questions and hypotheses.

The qualitative objectives of the study were to establish differences in the nature of teaching and learning processes in classrooms exposed to pre-teaching of vocabulary and those that were not exposed to any pre-reading activities; and, to examine differences in the nature of teaching and learning processes in classrooms exposed to brainstorming and those that were not exposed to any pre-reading activities. The quantitative objectives included assessing if there was a difference in performance of a reading test between learners in language classrooms that used pre teaching vocabulary and those that used brainstorming; determining if pre-teaching vocabulary and brainstorming had a significant effect on performance in reading comprehension in selected secondary schools; and, comparing the impact of pre-teaching vocabulary and brainstorming on achievement in reading comprehension to determine which of

the two pre-reading activities had a more significant effect on performance of ESL learners in reading comprehension tasks.

4.2 Data Presentation and Analysis

After administering the comprehension test in the field, a total of 852 scripts were collected, and confirmed to be the actual total number of learners who participated in the study. This figure contrasted with the expected number of students as stated in Chapter three (3). Except for vocabulary pre-teaching and brainstorming classrooms where the two pre-reading activities were respectively used to introduce the reading comprehension task, the control classrooms were taught without any pre reading activities. However, all students (852) in the three groups were subjected to the same reading comprehension test (Appendix 1), on the day scheduled for each school during the normal timetabled lessons. This helped to control Hawthorne effect.

Qualitative data were collected by use of observation checklists (Appendix 4). The study sought to establish differences in the nature of teaching and learning processes between language classrooms earmarked for vocabulary pre-teaching, brainstorming and those without any pre-reading activities. Therefore, the researcher developed a set of three checklists to record information for the two experimental or treatment language classrooms (vocabulary pre-teaching and brainstorming), and the control classroom (no any pre-reading activities) in each school. The checklist generally included information from the guidelines on pre-teaching vocabulary and brainstorming as shown in Appendices 4 and 5 as well as Conceptual Framework (Figure 1.1). Data from the classroom observation checklists were coded before thematic and content analysis were done and then the results were presented thematically using tables, and narrations.

On the other hand, quantitative data were collected using a researcher-made reading comprehension test. A total of 852 students from twenty-one language classrooms sampled from seven public secondary schools selected from the study location attempted the test. Data on learners' performance in the test were analyzed using Analysis of Variance (ANOVA) to compare the means of pre-teaching vocabulary, brainstorming and control (no treatment) groups. The findings were used to test the research hypotheses at the significance level of 0.05. After analyzing the qualitative and quantitative data variously, the researcher then converged and or integrated the findings for interpretation so as to provide a comprehensive overview of the research problem (Creswell, 2014). This was in accordance with the framework for interpreting data in a convergent parallel design as shown in Figure 3.1.

4.3 Nature of Teaching and Learning in ESL Classrooms

In this study, nature of teaching and learning was conceptualized as the instructional activities that characterize ESL classrooms, hence defining what teachers and learners respectively do. The researcher selected three ESL classrooms in each of the seven schools in the sample. Students in each of these classrooms were respectively earmarked for pre-teaching vocabulary session, brainstorming session and no any pre reading activities at all (No Treatment classroom). The researcher observed the teaching and learning activities in the three groups using an observation checklist. The findings were used to determine the differences in the nature of teaching and learning, and addressed the two qualitative objectives of the study. For instance, Table 4.1 presents findings on time taken for teaching and or learning, testing as well as the number of vocabulary items taught and number of questions brainstormed.

Table 4.1: Timing and Number of Words/Questions

Type of Pre Reading Activity/Group	Range of Teaching Time (Minutes)	Range of Testing Time (Minutes)	No of Words or questions
Pre teaching Vocabulary (Exp. Group)	11-25	40	4-9
Brainstorming (Exp. Group)	12-20	40	2-8
No Activity (Control Group)	-	40	-

Table 4.1 shows that teachers spent between eleven (11) and twenty-five (25) minutes to teach new words in the passage. The teachers selected between four (4) and nine (9) words. According to the observation schedule on pre-teaching vocabulary (Appendix 4), teachers were expected to select from the passage either five (5) or six (6) words that could be unfamiliar to learners and teach them before they (learners) read the passage. These findings reveal that the duration for this pre reading activity was dependent upon the number of words selected. Some of the teachers selected very many words, depending on their learners' linguistic ability, which took them too long to pre-teach vocabulary.

In the brainstorming classrooms, teachers were expected to set a time limit for discussions of given topics (Appendix 5). Table 4.1 shows that teachers across the seven (7) classes provided between two (2) to eight (8) questions or topics to the groups in their respective brainstorming classes. The discussions took the learners between twelve (12) and twenty (20) minutes to finish. This indicates that the amount of time taken for deliberations during brainstorming sessions was dependent on the number of topics given to the learners.

All the ESL classrooms in the study were timed on the reading comprehension test. The test took forty (40) minutes in both the experimental and control classes. This uniformity in the timing of the test was intended to incorporate the time factor into the study and control for its effect on learners' performance in the test.

4.3.1 Nature of Teaching and Learning in Pre-Teaching Vocabulary Classrooms

The type of activities or processes and manner in which ESL teachers and learners engaged themselves during the pre-teaching vocabulary sessions constituted the nature of teaching and learning in the classroom. The execution of the language activities was pre-determined in this study. The language teachers were provided with appropriate guidelines on how to conduct the sessions (Appendix 4).

However, the language teachers in respective classrooms or schools had the discretion to choose and pre-teach vocabulary which were deemed necessary for learners' comprehension of the reading text. It was observed that many teachers selected and taught the same vocabularies across the classrooms. The implication of this observation is that Kenyan ESL learners generally had a challenge with English words.

4.3.1.1 Teaching Processes in the Vocabulary Pre-Teaching Classrooms

The first objective of this study was to *establish the differences in the nature of teaching and learning processes in classrooms exposed to pre-teaching vocabulary and those that were not exposed to any pre-reading activities*. The findings would address the question: In which ways do the teaching and learning processes in classrooms exposed to pre-teaching vocabulary and those that are not exposed to any pre-reading activities differ?

To yield the necessary data for this qualitative objective, the researcher used an observation checklist to verify activities across the seven (7) experimental classrooms where teachers selected and taught vocabulary as a pre-reading activity. In the checklist, teaching activities included but were not limited the pedagogic plan that included a conscious three-phase framework; setting objectives for the pre-reading session; managing time during the session; evaluation of the session; as well as adherence to the set guidelines for pre-teaching vocabulary, thus, selection of difficult words; pre-testing selected words; choosing a mode of presenting the words; explicit teaching of the words, et cetera.

In the present study, the researcher observed how and whether or not the language teachers executed the activities set out for the teacher in the checklist. Tables 4.2 presents a summary of the findings for the various teaching processes observed in the seven (7) ESL classrooms for pre-teaching vocabulary in this study:

Table 4.2: Nature of Teaching Processes in Pre-Teaching Vocabulary Classrooms

Teaching process	Observed	Unobserved	Nature/description of processes
Clarifying objective of the activity	5 (71.4%)	2 (28.6%)	In four classes (57.1%) teachers stated the objective of the session while in three classes (42.9%) the teachers did not tell learners why they were having the session.
Timing the session	7 (100%)	0	In all the 7 (100%) classes for pre-teaching vocabulary, the teachers took a certain duration to conduct the session.
3-phase framework	7 (100%)	0	In all the classes (100%), pre-teaching vocabulary preceded the during- and after-reading activities
Evaluation of session	7 (100%)	0	Teachers in the 7 classes (100%) posed questions after the session to determine leaners' knowledge of the words before reading the passage.
Pretesting vocabulary	7 (100%)	0	Teachers in all the experimental classrooms asked learners to attempt meanings of selected word
Presentation of words	7 (100%)	0	Teachers in 6 classrooms (85.7%) used chalkboard whilst only 1 (14.3%) displayed diagrams.
Techniques of teaching words explicitly	7 (100%)	0	In 4 (57.1%) classrooms teachers asked learners to use contextual clues; in 1 (14.3%) teacher read out word as learners repeated and 2 (28.6%) teacher related selected words to the passage.
Practicing new words	5 (71.4%)	2 (28.6%)	Teachers in 4 (57.1%) classrooms asked learners to give own sentences with the words; in 1 (14.3%) the teacher created word maps; while in 2 (28.6%) classrooms, teachers never asked learners to practice learned words.
Post testing learned vocabulary	5 (71.4%)	2 (28.6%)	Teachers in 4 (57.1%) classrooms asked learners to construct novel sentences using learned words; in 1 (14.3%) classroom, teacher reviewed/went through the meanings again; and in 2 (28.6%) classroom, no post testing was done.
Creating learner motivation	6 (85.7%)	1 (14.3%)	In 6 (85.7%) classrooms where pre-teaching vocabulary was done, co-operative learning in small groups; positive feedback; and autonomy-supporting instruction were all used by the teacher in the same lesson, to motivate learners.

Vocabulary maps	6 (85.7%)	1 (14.3%)	In 5 (71.4%) classrooms, teachers used both synonyms and antonyms; in 1 (14.3%) classroom, only antonyms were used; yet in 1 (14.3%) classroom, no vocabulary maps were used at all.
Teaching style	7 (100%)	0	In 6 (85.7%) classrooms, teachers used interactive teaching style; while in 1(14.3%) classroom, there was teacher-centred style.
Differentiated instruction	3 (42.9 %)	4 (57.1%)	In 3 (42.9%) classrooms, teachers differentiated teaching through personalized/individualized instruction; but in, 4 (57.1%) classrooms, there was no differentiation at all.
Teaching resources	7 (100%)	0	All the classrooms for pre-teaching vocabulary used a combination of relevant resources. In 5 (71.4%) classrooms, teachers asked learners to refer in dictionaries; in 1 (14.3%) classroom, learners taught peers; and in 1 (14.3%) teachers illustrated meanings on the chalkboard.
Eliciting background knowledge	7 (100%)	0	Three key ways of eliciting background knowledge were observed: in 5 (71.4%) classrooms teachers discussed meanings of new words by referring to the passage; in 1(14.3%) classroom, teacher gave examples echoed events in the passage to be read; yet in 1 (14.3%) classroom, teacher discussed/explained words in the title of the passage.

Table 4.2 summarizes the findings on the nature of the processes in a pre-teaching vocabulary language classroom. In so far as the pedagogic plan is concerned, the study revealed that in five language classrooms (57.1%), teachers attempted to clarify the objective(s) of having the pre-reading activity (pre-teaching vocabulary), while in three classrooms (42.9%) teachers did not tell learners why they were having the session. As earlier shown in Table 4.1, the findings in Table 4.2 show that in all the classrooms (100%) the teachers did not state the duration the activity would take, but certainly devoted some time to pre-teach vocabulary. The duration for pre-teaching vocabulary depended on the number of selected words. Generally, the findings revealed that in all the classrooms (100%) the teachers integrated pre-teaching vocabulary into the three-phase reading process. This activity preceded other activities that were presented during reading and after reading. In addition, they all (100%) evaluated pre-teaching vocabulary session by posing questions to learners to determine their understanding of the words before embarking on the actual reading of the passage.

As for adherence to the set guidelines, the findings revealed that in all the seven (100%) classrooms for pre-teaching vocabulary there was pre-testing of selected vocabulary. The teachers in these classes listed the unfamiliar words on the board and asked learners to state their meanings, failure to which the teachers themselves would give the meanings or refer learners to the dictionaries. No other strategies as suggested in the guidelines (Appendix 4) were employed by the teachers for pre-testing the new vocabulary. In fact, the teachers did not score learners on pre-test, so their choice of words deemed difficult was arbitrary and dependent on the teachers' knowledge or perception of the learners' linguistic competence. In all the seven classrooms the new words were presented; out of which six classrooms (85.7%)

predominantly listed words on the chalkboard, whilst only one (14.3%) used diagrams to present the new words. Other options for presenting vocabulary such as posters and PowerPoint were never tried out.

The teaching process also involved techniques for teaching words explicitly. The teachers in all the classrooms for pre-teaching vocabulary used a given strategy to explicitly teach the selected words. For instance, in four classrooms (57.1%) teachers asked learners to use contextual clues; in two classrooms (28.6%) teachers explained the selected words vis-a-vis the events in the passage to be read; and in one class (14.3%) learners were made to read out the words aloud after the teacher. Teachers did not try out other strategies such as creating word maps and sentence starters as suggested in the guidelines for pre-teaching vocabulary (Appendix 4). Teachers in five out of seven classrooms (71.4%) made learners to practise new words. For instance, in 4 classrooms (57.1%), teachers asked learners to give own sentences using the learned words; while in 1 classroom (14.3%), the teacher created word maps. In the remaining 2 classrooms (28.6%) teachers never asked learners to practice the learned words.

Teachers in five out of seven classes (71.4%) post tested learners on the newly learned vocabulary; but in two classes (28.6%) no post testing was done. In four of the classrooms where post testing was done (57.1%), teachers asked learners to construct novel sentences that contained the newly learned words; and in the other one classroom (14.3%) the teacher reviewed or went through what s/he had taught. The students were not asked to record scores; so, teachers did not compare pre- and post – test scores. However, teachers occasionally advised learners to keep learning and building new vocabulary. There was evidence of teachers attempt to motivate

learners. In six out of seven classes (85.7%) ESL teachers motivated learners through any or a combination of strategies such as co-operative learning in small groups, positive feedback to learners and autonomy-supporting instruction. Only in One classroom (14.3%) was a teacher seen not to have tried to motivate learners in any possible way.

To enhance a grasp of vocabulary, the study anticipated that teachers would use vocabulary maps such as visual organizers; journals with blank maps to fill in for the newly learned words; use of synonyms, antonyms, parts of speech, root word, prefix and suffix. It was noted that in Eighty-Five Point Seven Percent (85.7%) of the language classrooms, teachers used vocabulary maps while in only Fourteen Point Three Percent (14.3%) did teachers fail to use any vocabulary maps. However, teachers only used synonyms and antonyms and not the other forms of vocabulary maps. On the aspect of learning styles, it was expected by the researcher that teachers would employ any one among learner-centred, teacher-centred or interactive approaches. Table 4.2 further reveals that eighty-five-point seven percent (85.7%) of the teachers used the interactive style. The teachers interacted with and sought views of learners on meaning of words, and guided the learners as appropriate. Only in fourteen-point three percent (14.3%) of the classrooms did the teachers render the lesson in the traditional teacher-centred manner.

Taking cognizance of the view that learners are different and that none of them should be left behind in the teaching-learning process, there was need to incorporate the aspect of differentiated instruction in the observation checklist for this study. The study anticipated differentiated lists of vocabulary for learners; teaching techniques; and, specified group activities for purposes of paying attention to individual language

needs and abilities of learners. Table 4.2 also shows that in forty-two-point nine percent (42.9%) of the classes, teachers attempted to differentiate teaching through personalized or individualized instruction. In a majority of the classrooms, fifty-seven-point one percent (57.1%), there was no differentiation of instruction at all. This ideally revealed that most of the teachers in ESL classrooms in Kenya do not pay attention to the learners' individual needs and abilities, hence adversely affecting the overall achievement of learners in reading comprehension tasks.

To teach vocabulary effectively, language teachers need resources such as dictionaries or thesaurus, class texts, other teachers, learners themselves, pictures or drawings, internet etcetera. In all the classes observed, teachers managed to utilize relevant resources. In addition, Table 4.2 also shows that in seventy-one-point four percent of the classes observed (71.4%), teachers asked learners to refer to the physical dictionaries in class; in twenty-eight-point six percent (28.6%) of the classes, teachers searched for the meaning of words on the internet using the dictionary application on phones; while in fourteen-point three percent (14.3%) of the classes, teachers used certain learners to teach their peers.

In this study teachers were expected to teach specific words carefully selected from the passage to be read by learners. The purpose of carefully selecting and targeting the teaching of the chosen words on the passage was to elicit appropriate background or prior knowledge of the learners on the subject of the passage. Three ways of triggering background knowledge of the learners was noted in this study: in Seventy One Point Four percent (71.4%) of the classrooms, teachers discussed meanings of new words by directly or indirectly making reference to the events in the passage to be read; in Fourteen Point Three percent (14.3%) of the classes, the teacher used

examples of events from the community to reinforce meanings of words selected from the passage to be read; and in another Fourteen Point Three percent (14.3%) of the classes, the teacher wrote the title of the passage to be read on the chalkboard and explained meaning of the key words in the title, in reference to the passage to be read.

4.3.1.2 Learning Processes in Pre-Teaching Vocabulary Classrooms

In the observation checklist, the researcher also recorded learning processes in the experimental classrooms that involved pre-teaching vocabulary. This was done to establish the activities performed by learners in the vocabulary pre-teaching classroom. Learning processes during the session included practising the taught vocabulary; learning styles; motivation for learning; reading and answering comprehension questions (test), including any other relevant instructional activities used by the teacher in the language classroom. Table 4.3 presents a summary of the findings on learning processes in the pre-teaching vocabulary classrooms:

Table 4.3: Learning Processes in Pre-Teaching Vocabulary Classrooms

Type of Learning process processes		Observed	Unobserved	Nature/description of the
Practicing new vocabulary		5 (71.4%)	2 (28.6%)	In 5 (71.4%) of vocabulary pre-teaching sessions, learner gave own sentences with the newly learned words; whilst in 2 (28.6%) sessions they never practiced the new vocabulary.
Doing the comprehension test		7 (100%)	0	Learners in all the 7 pre-teaching vocabulary classrooms (100%) wrote the test.
Learning styles		7 (100%)	0	In all the 7 schools (100%), a combination of learning strategies was used. For example, in all 7 schools (100%) both visual and auditory were witnessed; in 2 out of 7 schools (28.6%) kinesthetic and tactile styles were observed; in 5 schools (71.4%) social (group work) and in 2 schools (28.6%) solitary style.
Learning motivation		7 (100%)	0	On a scale of 1-5 (very low to very high respectively), learners in 1 (14.3%) session showed very high motivation; another 1 (14.3%) had high motivation; 4 (57.1%) sessions showed fair motivation; whilst 1 (14.3%) showed low motivation.
Learner participation based on learner gender & school type		7 (100%)	0	On a scale of 1 -3 (inactive to very active), learners in 1 national boys' school (14.3%) were very active; 5 boys' girls' & mixed schools (71.4 %) were generally active; and 1 mixed school (14.3%) were inactive.

Table 4.3 is a summary of the findings of this study on the learning processes in a pre-teaching vocabulary classroom. According to the guidelines for pre-teaching vocabulary (Appendix 4) the following indicators of learning processes were scheduled for observation: practising the new vocabulary by learners; doing the reading comprehension test; learning styles; motivation for learning and influence of school and or gender on learner involvement in language classroom vocabulary activities.

With regard to practising new vocabulary, the study anticipated that learners would be allowed to create word maps, use sentence starters among other techniques for practising newly learned words. To create word maps learners would need to draw a map of learned words, their definitions, and learner-generated examples of sentences containing newly learned vocabulary. To facilitate the retention of the new vocabulary, learners were expected to use the learned words either in individual or co-operative activities by tapping into the four language skills, vis-à-vis speaking, listening, reading and writing. The teachers were also expected to provide learners with sentence starters so that the learners could complete the sentences using expressions that contained the learned words. Table 4.3 shows that in Seventy-One Point Four percent (71.4%) of the vocabulary pre-teaching sessions observed, learners practised new vocabulary by individually seizing the opportunity to orally present grammatically well-constructed sentences that contained the learned vocabulary. The teacher's role was to accord learners the opportunity to present their responses, then the teacher would affirm or denounce the learners' responses. In Twenty-Eight Point Six (28.6%) of the observed sessions, learners were never accorded the opportunity to practice newly learned vocabulary.

In all (100%) the vocabulary pre-teaching sessions observed, the learners wrote the reading comprehension test as set out by the study. The purpose of the test was to determine effect of pre-teaching vocabulary on performance of the ESL learners in Kenya. The findings on this are reported in section 4.4 of this chapter. Learning styles are an aspect of learner individual differences that was built into this study. These styles were classified as visual, auditory, kinesthetic, tactile, analytic, social, and solitary or a combination of two or more of these styles (Appendix 4). They were classified as such based on the manner in which learners conducted themselves during

the pre-teaching vocabulary session. Table 4.3 shows that in all the classes (100%) observed during pre-teaching vocabulary, there was evidence of learning styles. For example, in all the 7 vocabulary pre-teaching sessions (100%) in this study, it was observed that learners were mostly looking and listening during the session (visual and auditory styles respectively). In 2 out of the 7 sessions (28.6%), learners were observed moving around and touching objects in classroom (kinesthetic and tactile styles). Furthermore, in 5 sessions (71.4%), learners were seen working in groups (social style); while in 2 sessions (28.6%) they were observed working individually (solitary style). These learning styles were determined by the teachers' preferred strategies for pre-teaching vocabulary.

In the guidelines for vocabulary pre-teaching session, the level of learner motivation for learning vocabulary was considered an aspect of individual difference. Motivation was evidenced through autonomy-supporting instruction, co-operative learning in small groups, interesting tasks and variation in teaching strategies. The researcher determined the level of learning motivation in the pre-teaching vocabulary classrooms on a scale of 1-5 (very low to very high respectively). Learners who are highly motivated exhibit a lot of interest and enthusiasm, thus they participate a lot during the session. As for learners with low motivation level, they lack any enthusiasm in the activities of pre-teaching session, and the teacher has to literally push them to say something in the classroom. Based on the stated scale, in Fourteen Point Three percent (14.3%) of the pre-teaching sessions, learners were very highly motivated; in another Fourteen Point Three percent (14.3%) of the sessions, they were highly motivated; while in a majority of the classrooms, Fifty Seven Point One percent (57.1%) learners were fairly motivated – they somewhat engaged themselves in the session activities only when teachers availed such opportunities; and yet in Fourteen

Point Three percent of the classes (14.3%), there was low motivation among the learners. This finding shows that a majority of learners were not motivated enough to actively and meaningfully engage in vocabulary learning sessions. The finding implies that a majority of Kenyan ESL learners lack the motivation to learn and comprehend new vocabulary, hence compounding their challenges in reading comprehension skills. Even when Eighty-Five Point Seven Per Cent (85.7%) of language teachers used a variety of strategies such as autonomy-supporting instruction, co-operative learning in small groups, interesting tasks and varied teaching strategies during teaching of vocabulary (Appendix 4), learners were not highly motivated to learn unfamiliar words in the comprehension text.

This researcher also built into this study gender and or school type as an extraneous variable. The sample schools for this study were either boys', girls' or mixed schools, with an assigned status of National, County or Sub-County schools by the Ministry of Education. The study needed to control for the possible effect of this extraneous variable on the study findings. From Chapter 3 of this thesis, the schools sampled for this study included: 2 boys' schools – 1 National and 1 County; 2 County girls' schools, and 3 Sub-County mixed school. Learners in these schools were involved in the pre-teaching sessions, with their involvement arbitrarily rated as either very active, active or inactive. To do this, a scale of 1-3 (ranging from inactive to very active) was developed. The findings in Table 4.3 show that on this variable of gender or school type, learners in 1 national boys' school accounting for Fourteen Point Three percent (14.3%) of the pre-teaching vocabulary sessions were very active. A majority of learners drawn from 5 schools – 1 boy's, 2 girls' and 2 mixed schools-accounting for Seventy-One Point Four percent (71.4%) of the sessions were generally active. Yet, Fourteen Point Three percent (14.3%) of learners from a mixed

Sub-County school were inactive. The implication of this finding is that all learners are generally capable of participating in activities during vocabulary pre-teaching sessions in an active manner. Gender and school type are not a significant factor in the participation of vocabulary pre-teaching session.

4.3.2 Nature of Teaching and Learning in Brainstorming Classrooms

The second objective of this study was to *examine differences in the nature of teaching and learning processes in classrooms exposed to brainstorming and those that were not exposed to any pre-reading activities*. Data for this qualitative objective was derived by observing and verifying activities in the observation checklist across the seven (7) language classrooms where brainstorming was used as a pre-reading activity. According to the checklist (Appendix 5) for brainstorming sessions, the teaching and learning activities that were observed during the sessions included aspects of the pedagogic plan such as clarifying the objective(s) for the activity; deliberately building brainstorming session into a three-phase framework of teaching the reading skills; time management during the brainstorming session; evaluating the session; and, working along the set indicators (guidelines) for a brainstorming session such as generating discussion questions or topics; encouraging the discussion; facilitating the brainstorming session by the ESL teacher; enhancing learner motivation; eliciting prior knowledge; using teaching resources; adopting appropriate teaching styles; differentiating instruction; recording ideas; identification of relevant ideas; attempting a comprehension test; use of relevant learning styles; developing learning motivation et cetera.

The findings of this study would address the question: What differences are evidenced in the teaching and learning processes between classrooms that use brainstorming and those that do not use any pre reading activities?

4.3.2.1 Teaching Processes in a Brainstorming Classroom

The researcher observed ESL classrooms where brainstorming was used as a pre-reading activity. The essence of this was to examine how the teachers innovated and carried out the teaching activities, in respect to the guidelines given to them. Table 4.4 presents a summary of the findings on the teaching processes in a brainstorming classroom:

Table 4.4: Nature of Teaching Processes in a Brainstorming Classroom

Type of Teaching process	Observed	Unobserved	Nature/description of the processes
Clarifying objectives of the activity	5 (71.4%)	2 (28.6%)	Five (71.4%) teachers stated why the session was necessary for ESL learning; while 2 (28.6%) teachers did not
Timing of the session	7 (100%)	0	In all the 7 sessions (100%), the teachers conducted the activity within a set time limit
Integration into a three-phase framework	7 (100%)	0	In all the 7 sessions (100%), brainstorming preceded the while-reading and post-reading activities
Evaluation of session	7 (100%)	0	In all the 7 sessions (100%) teachers posed questions for learners to clarify their ideas.
Generation of questions	7 (100%)	0	In all the sessions (100%) observed, teachers generated discussion questions, but not sub questions. They also gave instructions to the learners.
Encouraging discussions	7 (100%)	0	In all the brainstorming classes (100%) teachers encouraged discussion by removing the sense of winners/losers; considering every idea given; moderating discussions as to give everyone a chance; and encouraging groups to write their ideas.
Facilitating the session	7 (100%)	0	In 14.3% of the classes, teachers used simple brainstorming; in 14.3 % of the classes, paired brainstorming was employed; but in a majority of the classes (71.4%) there was group brainstorming. Pie chart and card methods were not used.
Creating learner motivation	7 (100%)	0	In 6 (85.7%) classes there was autonomy-supporting instruction; in all the 7 classes (100%) there was co-operative learning in small groups; and in 6 (85.7%) classes teachers used positive feedback to motivate learners.
Differentiated instruction	5 (71.4%)	2 (28.6%)	In 5 out of the seven classes (71.4%), teachers attempted to differentiate instruction. Teachers were observed paying attention to individual learners/groups (individualized teaching). In 2 out of 7 classes (28.6) no differentiated instruction was seen.
Teaching resources	7 (100%)	0	In all the 7 classes, teachers exclusively used the chalkboard (100%) and learners themselves (100%).
Teaching style	7 (100%)	0	In 4 out of 7 classes (57.1%) teachers used interactive teaching; in 1 out of 7 classes (14.3%), teacher-centred teaching was seen; and in 2 out of 7 classes (28.6%), learner- centred teaching was seen.
Elicitation of learners' prior knowledge	7 (00%)	0	In 5 out of the seven (71.4%) sessions the questions reflected issues in the passage; in 2 (28.6%) of those classes, learners were asked to reflect on the title and explain what was to be expected from the passage.

With regard to the pedagogic plan, the findings in Table 4.4 show that in five language classrooms (71.4%) the teachers clarified or stated the objective(s) of the brainstorming session from the onset; while in two classrooms (28.6%) the teachers did not state the objective of the session. Also, teachers in all the 7 brainstorming sessions (100%) set a time limit and conducted the session within the set time limit. Then, in all the seven (100%) sessions observed, the teachers integrated the brainstorming session into the three-phase framework of a reading lesson. That is, learners were engaged in the brainstorming session purposely to prepare or activate their minds to handle activities during and after reading the comprehension text. The discussions were geared towards activating learners' relevant background knowledge, necessary for improving comprehension during actual reading of the passage. In evaluating the sessions (Appendix 7), the study intended to determine whether learners in the groups posed questions to their peers after presentations in class for clarification of what had been presented. Findings in Table 4.4 reveal that all the 7 (100%) brainstorming sessions observed were evaluated – learners sought clarification from peers after discussions and presentations.

On adherence to the brainstorming guidelines, teachers in all the seven (100%) sessions observed carefully framed questions to help learners generate ideas. However, none of the teachers in these classrooms prepared sub questions as suggested in the guidelines to help direct the thoughts of learners in the right direction. The learners recorded their ideas on paper as instructed by the teachers. Findings in Table 4.4 also show that teachers in all the brainstorming sessions that were observed (100%) encouraged learners to discuss ideas. The learners were told that the session was not a contest to establish winners and losers; their ideas were considered equally; all the sessions were moderated in such a way that every learner

had room to contribute; and, every group or pair of learners identified a member to write down their ideas for presentation to the whole class.

In addition, findings in Table 4.4 indicate that all the teachers observed (100%) facilitated the brainstorming sessions by avoiding to judge or comment on the ideas presented by the learners. They also divided their classes into group to facilitate the brainstorming sessions. These findings further reveal that in Fourteen Point Three percent (14.3%) of the sessions observed, teachers used simple brainstorming, whereby the teacher wrote questions on the chalkboard and students supplied their individual ideas on them; in another Fourteen Point Three percent (14.3%) of the sessions, paired brainstorming was used. In a majority of the brainstorming sessions accounting for Seventy-One Point Four percent (71.4%), teachers used group brainstorming by organizing the classes into groups of five to six members. Pie chart and card methods that had been incorporated into the guidelines (Appendix 5) were not used at all by the teachers. For pie chart method, a circle is drawn and the topic written in the centre. The circle is then divided by the teacher into 4 – 5 parts, representing sub-topics. Students are instructed to generate ideas for each sub-topic. The card method involves students listing their ideas on a stacked card, and passing it to the next student who reads what has been written on the card and adds his ideas or question to it. The teacher collects the cards that are filled-up with ideas and reads the ideas to the class.

Also, in all the seven (100%) ESL brainstorming sessions observed, teachers employed certain approaches simultaneously to motivate learners to actively engage in brainstorming sessions. For instance, teachers in all the 7 brainstorming sessions (100%) mainly used co-operative learning in groups of five; in 6 out of seven

brainstorming sessions (85.7%) they used autonomy-supporting instruction, in which case learners independently handled the tasks with little or no intervention by the teacher; and in another 6 brainstorming sessions (85.7%) positive feedback or praises for good presentations was used to motivate learners.

Teachers and learners are unique in their own right as individuals. This study therefore anticipated a situation in which professional teachers would appreciate that their learners had individual needs and abilities that varied from one person to another. As such, it was expected that the instructors would differentiate the teaching process for purposes of meeting their learners' needs. There was a noticeable attempt to differentiate instruction. The findings in Table 4.4 reveal that in five (71.4%) of the brainstorming sessions, teachers tried to individualize teaching by going to individual learners or groups during the session so as to help on the tasks where necessary. However, this may not have been a conscious and deliberate effort at differentiating instruction because there were differences in group tasks or questions; and the teaching techniques were seen to be the same in each of the ESL classrooms. In two of the brainstorming sessions (28.6%), no there was attempt to differentiate instruction at all.

In terms of teaching resources, the teachers were expected to use dictionaries, relevant textbooks, internet, use of learners themselves or colleagues in the school and any other materials (Appendix 5). The findings in Table 4.4 show that in all the seven (100%) classrooms observed, teachers mainly used the chalkboard to present the questions, as well as the learners themselves to brainstorm and present their ideas. This finding implies that the teachers left the learners to take charge of the search for

information and the discussions. The teachers only provided questions and moderated the deliberations without unnecessary interjections.

On the aspect of teaching style as indicated in the guidelines (Appendix 5), it was observed that in Fifty-Seven Point One percent (57.1%) of the brainstorming sessions there was interactive teaching; learner-centred teaching in Twenty-Eight Point Six percent (28.6%) of the ESL brainstorming sessions; and teacher-centred teaching in Fourteen Point Three percent (14.3%). This finding reveals that even when teachers know that certain tasks need input of learners themselves, some of them cannot resist the temptation to patronage the learning process as they have traditionally done.

Finally, the study envisaged that the language teachers in the brainstorming sessions would carefully prepare questions that needed to deliberately elicit the learners' prior knowledge. This was realizable through the manner in which the discussion questions were tailored to influence learners' prior knowledge on the subject or topic of the text. The findings in Table 4.4 show that in Seventy-One Point Four percent (71.4%) of the brainstorming sessions, teachers prepared questions that reflected salient issues in the passage learners were going to read; and in Twenty-Eight Point Six percent (28.6%) of the sessions, the teachers wrote the title of the passage on the board and asked learners to discuss it and state what they expected to encounter in the passage later. This gave learners the opportunity to search into their background knowledge, which was expected to impact positively on their comprehension of the material to be read.

4.3.2.2 Learning Processes in a Brainstorming Classroom

Apart from the teacher activities in the brainstorming classroom, the researcher also extracted the learner activities from the observation checklist (Appendix 5). These activities included but were not limited to learner(s) writing down ideas raised during

the brainstorming session; evaluating the relevance of their ideas before presenting them to the entire class; attempting a written reading comprehension test; learning styles; learning motivation; and learner participation based on extraneous variables such as gender and type of school. Table 4.5 presents a summary of the findings gathered on the nature of learning processes in the ESL brainstorming classroom:

Table 4.5: Learning Processes in Brainstorming Classrooms

Type of Learning Process	Observed	Unobserved	Nature/description of process
Compiling ideas	7 (100%)	0	Learners in all the 7 (100%) brainstorming sessions recorded ideas agreed upon on paper during discussions
Relevance of compiled ideas	7 (100%)	0	Learners in all the 7 (100%) brainstorming classes gave relevant ideas during presentations
Attempting a comprehension test	7 (100%)	0	Learners in all the 7 (100%) brainstorming classes took the reading comprehension test.
Learning styles	7 (100%)	0	In all the 7 (100%) brainstorming sessions, learners combined visual, auditory and social styles.
Learning motivation	7 (100%)	0	On a scale of 1-5 (very low to very high respectively), learners in 1 (14.3%) classes showed very high motivation; 3 (42.8%) showed high motivation; 2 (28.6%) showed low motivation; and 1 (14.3%) exhibited very low motivation.
Learner participation based on gender & school type.	7 (100%)	0	On a scale of 1-3 (inactive to very active) learners in 1 national boys' school (14.3%) were *very active*; learners in 5 (71.4%) schools (1 county boys', 2 county girls' and 2 sub-county mixed schools) were *generally active*; and learners in 1 mixed sub-county school (14.3%) were *inactive*.

The guidelines for brainstorming (Appendix 7) highlighted certain key aspects of learning during the brainstorming session. The researcher checked if learners: organized and wrote down all their ideas; identified and discarded irrelevant ideas;

attempted the comprehension test; exhibited specific learning styles; were motivated to participate in the sessions; and whether gender and school type as extraneous factors influenced their level of participation during brainstorming sessions.

The findings in Table 4.5 reveal that in all the seven (100%) ESL brainstorming sessions observed, learners wrote on paper the ideas collected and agreed upon in their respective groups during the sessions. The learners had earlier been instructed by their teachers to record their ideas during the discussions. Moreover, in all the seven brainstorming sessions (100%), learners managed to discard irrelevant ideas by either culling the list to retain only the best or agreeable ideas; leaving out irrelevant points during brainstorming session; or spending some time after brainstorming to select the best ideas from the list. Indeed, virtually all the ideas presented by the learners in the brainstorming classrooms were uncontested. Given that the classroom presentations were undertaken immediately upon the lapse of the allotted time for the session, the study reported that it was highly likely that the learners discarded irrelevant ideas by culling them out during the brainstorming session.

There was a common reading comprehension test for the learners in the brainstorming, pre-teaching vocabulary as well as control classrooms. The test was a tool for determining the effect of the brainstorming session on performance of learners in the reading comprehension test in comparison with the achievement of learners in the other two groups. Detailed findings on performance in the test are presented in section 4.4 of this chapter.

In all the seven (100%) ESL brainstorming sessions observed, learners mainly exhibited a combination of the social, visual and auditory learning styles. Given the nature of the brainstorming sessions, learners mainly engage in group activities in

which they interact using verbal and non-verbal codes, listening and talking to each other.

The learners' level of motivation was an aspect of individual difference, an extraneous variable built into this study. Determined on the basis of their interest and willingness to participate in the activities of the brainstorming session, learning motivation was measured on a scale of a scale of 1-5 (very low to very high respectively). Teachers had the option to apply co-operative learning, autonomy supporting instruction to harness learner interest. The findings in Table 4.5 show that in Fourteen Point Three percent (14.3%) of the brainstorming sessions, learners showed very high motivation; in Forty-Two Point Eight percent (42.8%) of the sessions, they showed high motivation; in Twenty-Eight Point Six percent (28.6%) of the sessions, low motivation among learners was observed; and in Fourteen Point Three percent (14.3%) of the sessions, learners manifested very low motivation. This finding shows that a majority of learners were highly motivated. This is partly attributable to the difference in organization and presentation of brainstorming sessions as opposed to pre-teaching vocabulary. Brainstorming sessions were largely and almost exclusively organized in groups. This, coupled with teaching strategies such as co-operative learning in small groups; autonomy-supporting instruction; and positive feedback that teachers applied in the ESL brainstorming sessions could explain the high motivation level.

Gender and status of school were considered an extraneous variable that was built into the study as a way of controlling for its likely effect on the relationship between pre-reading activities and reading comprehension performance. So, learner level of involvement in brainstorming sessions was determined, considering type of school.

Findings in Table 4.5 revealed that on a scale of 1-3 (inactive to very active), learners in 1 national boys' school (14.3%) were very active; learners in 5 schools (71.4%) – 1 County boys' school; 2 County Girls' schools and 2 Sub-County Mixed schools – were generally active; and learners in 1 Sub-County Mixed school (14.3%) were rated as inactive. Like for the pre-teaching vocabulary classrooms, learners in brainstorming classrooms proved that irrespective of gender and type of school, learners are capable of generally participating actively in ESL brainstorming sessions.

Since this study was supposed to determine the effect of pre-reading activities on reading comprehension performance of ESL learners in Kenya, it was then paramount to address the question: *How differently is the performance of ESL learners impacted when they use pre-teaching vocabulary and brainstorming in their classrooms?* To do this, learners in the pre-teaching vocabulary and brainstorming groups, as well as the control group were subjected to the same reading comprehension test. The researcher-made test was administered under the same duration for all the learners in this study (see Table 4.1).

4.3.3 Reading Comprehension Tests: Assessing Differences in Performance

The study selected two treatment classrooms (pre-teaching vocabulary, brainstorming) and one control language classroom in each of the seven schools sampled for this study. The researcher then issued and discussed the guidelines with ESL teachers in the experimental classrooms on how to conduct pre-teaching vocabulary and brainstorming in language classrooms (Appendices 4 and 5). Teachers in the control groups did not use any pre-reading activities (treatment). So, a total of eight hundred and fifty-two (852) learners from seven schools and twenty-one (21) language classes, comprising the experimental and control classrooms, were subjected

to the same reading comprehension test. The aim of this test was to enable the researcher compare the results of the test for all the groups so as to determine the effect of the given pre-reading activities on performance of learners in reading comprehension.

The third objective of this study was to *assess if there was a difference in performance between learners that used pre-teaching vocabulary and those that used brainstorming*. The researcher analyzed the data by comparing means of the two teaching strategies, pre-teaching vocabulary and brainstorming, using one-way Analysis of Variance (ANOVA) technique. The findings are shown as descriptive statistics in Table 4.6.

Table 4.6: Descriptive Statistics

Dependent Variable: Reading comprehension scores

Teaching Strategies	Mean	Std. Deviation	N
Pre-teaching vocabulary	10.21	4.429	300
brainstorming	9.45	4.489	298
Total	9.83	4.471	598

The results in Table 4.6 reveal that at $p < .05$ level for the dependent variable (performance in reading comprehension test) the two separate independent variables (pre-teaching vocabulary and brainstorming) posted different mean scores. The mean score for pre-teaching vocabulary (M=10.21, SD= 4.429) was slightly different from that of brainstorming (M=9.45, SD= 4.489). The researcher then applied one-way ANOVA because it was appropriate for comparing the means of the two categories (pre-teaching vocabulary and brainstorming) of the independent variable - teaching strategy (pre-reading activities). This would help to determine whether the differences in the means was significant. The dependent variable was performance in reading comprehension. One-way ANOVA generated the result in Table 4.7.

Table 4.7: ANOVA

Dependent variable: Performance in Reading Comprehension

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	90.288	1	90.288	4.541	.034
Within Groups	11850.207	596	19.883		
Total	11940.495	597			

The findings in Table 4.7 further revealed that at p< .05 level, the difference between the means of pre-teaching vocabulary and brainstorming [F (1,596) = 4.541, p = .034] was indeed statistically significant. Therefore, the null hypothesis which stated that there is no statistically significant difference between the performance of learners exposed to pre-teaching vocabulary and those exposed to brainstorming was rejected.

4.3.4 Determining Effect of Pre-Reading Activities on Performance

The fourth objective of this study was to *determine if pre-teaching vocabulary and brainstorming had a significant effect on performance in reading comprehension*. The Analysis of variance was computed on SPSS and the results are as shown in Table 4.8a and 4.8b. performance in reading comprehension is the dependent variable (DV).

Table 4.8a: Between-Subjects Factors

Teaching strategies		Value Label	N
	1	Pre-teaching Vocabulary Method	300
	2	Brainstorming Method	298

The SPSS-generated table 4.8a shows that pre-teaching vocabulary and brainstorming, being strategies for teaching reading comprehension were the independent variables or fixed factors in the one-way ANOVA test.

Table 4.8b: Tests of Between-Subjects Effects

Dependent Variable: Performance in Reading Comprehension

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	90.288[a]	1	90.288	4.541	.034
Intercept	57643.599	1	57643.599	2899.155	.000
Teaching Strategy	90.288	1	90.288	4.541	.034
Error	11850.207	596	19.883		
Total	69600.000	598			
Corrected Total	11940.495	597			

a. R Squared = .008 (Adjusted R Squared = .006)

Results in Table 4.8b indicate that at p< .05 level, both pre-teaching vocabulary and brainstorming [F (1, 596) = 4.541, P= .034] were teaching strategies that had a statistically significant effect on performance of ESL learners in the comprehension test. On the basis of this finding, the null hypothesis stating that there is no statistically significant effect on the performance of ESL learners in reading comprehension when pre-teaching vocabulary and brainstorming are used as teaching strategies was clearly rejected.

4.3.5 A Comparison of the Performance for Pre-Teaching Vocabulary and Brainstorming

The fifth objective of the study was to *compare the impact of pre-teaching vocabulary and brainstorming on achievement in reading comprehension so as to determine which of the two pre-reading activities had a more significant effect on performance of ESL learners in reading comprehension tasks*. In this study, the two ESL classrooms where learners used pre-teaching vocabulary and brainstorming were separately compared with the classroom without any pre reading activities. The control group (classroom without any pre reading Activities) was useful for separately determining and comparing the effect of two pre reading activities in the study. Therefore, the study analyzed the data using one-way ANOVA with the categorical

variables being the two teaching strategies and learners' performance being the continuous variable. The analysis generated the information in Table 4.9.

Table 4.9: ANOVA

Dependent variable: Reading comprehension performance

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	448.871	2	224.436	11.562	.000
Within Groups	17489.500	901	19.411		
Total	17938.371	903			

The findings in Table 4.9 show that there was there was a statistically significant difference among the groups with regard to their effect of on the performance in reading comprehension test. The researcher then conducted a Tukey post hoc test to determine with precision, how significantly different the effect of the three groups were on performance in the test. The dependent variable (DV) was the reading comprehension performance. The findings are in Table 4.10.

Table 4.10: Multiple Comparisons

Dependent Variable: Reading comprehension performance
Tukey HSD

(I) Teaching strategies	(J) Teaching strategies	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Pre-teaching vocabulary	Brainstorming	.754	.360	**.092**	-.09	1.60
	control	1.716*	.358	.000	.88	2.56
Brainstorming	Pre-teaching vocabulary	-.754	.360	**.092**	-1.60	.09
	control	.963*	.359	.020	.12	1.80
Control	Pre-teaching vocabulary	-1.716*	.358	.000	-2.56	-.88
	Brainstorming	-.963*	.359	.020	-1.80	-.12

*. The mean difference is significant at the 0.05 level.

Table 4.10 provides results of the post hoc test showing detailed multiple comparisons of the means for individual groups in the study. Some of the results of the mean differences between the three groups (Pre-teaching vocabulary, Brainstorming and control) are marked with * (asterisk) to indicate that the mean difference is significant at p< 0.05 level. The results of ANOVA (Table 4.9) show that generally, there was a statistically significant difference in the effect of the three groups on performance in reading comprehension. However, from the Tukey post hoc test for multiple comparisons (Table 4.10), this study reported that at p< .05 value, there was no statistically significant difference in the effect of pre-teaching vocabulary and brainstorming on performance of Kenyan ESL learners in reading comprehension tests [F (2, 901) = 11.562, p = .092]. Neither of these strategies is particularly more impactful than the other in so far as determining the performance of learners in reading comprehension is concerned. This means that language teachers can use any pre-reading activities with their learners to achieve reading comprehension, and ultimately, good performance in reading tests. As such, this study accepted the null hypothesis which stated that there is no statistically significant difference in the effect of pre-teaching vocabulary and brainstorming on performance of ESL learners in reading comprehension tasks.

Nonetheless, the study revealed that there was a significant difference between language classrooms exposed to pre-reading activities and the control classroom in terms of effect on performance. For example, the study revealed that at p< 0.05 level, pre-teaching vocabulary [F (2, 901) = 11.562, p = .000] had a statistically more significant effect on reading comprehension performance than the control class. Again, at p< 0.05 level, brainstorming [F (2, 901) = 11.562, p = .020] equally had a

more significant effect on reading comprehension performance than the control class. This points to the importance of pre-reading activities in the language classroom.

4.4 Integration and Interpretation of Findings from Observations and Test

This study adopted the mixed methods approach. The qualitative and quantitative approaches were triangulated so as to corroborate and validate the findings. Data were collected and analyzed using the convergent parallel mixed methods design. In this case, qualitative and quantitative data sets were analyzed independent of each other, and then the findings interpreted to show the extent to which they converged or diverged from each other (Creswell & Plano-Clark, 2018).

There were two qualitative objectives of this study: to establish the nature of teaching and learning in language classrooms where pre-teaching of vocabulary was done vis-à-vis classrooms where there were no pre reading activities at all; and, to examine the nature of teaching and learning in classrooms exposed to brainstorming and compare them with those taught without any pre reading activities.

Nature of teaching and learning referred to in these objectives were the specific elements that describe ESL teachers' handling of pre-reading activities (pre-teaching and brainstorming), including aspects of differentiated instruction as shown in Appendices 6 and 7. Most of these elements were derived from the guidelines for pre-teaching vocabulary and brainstorming (Appendices 4 and 5) that were shared with the language teachers before collecting data. The elements or processes form the criteria upon which the effect of pre reading activities on performance in reading comprehension was determined in this study. These elements were specific to and isolatable in the experimental groups but not the control group (classrooms where no

Pre-Reading Activities were used), except of course for the common reading comprehension test.

The three quantitative objectives were used to measure the effect of each of the pre reading activities on performance. Overall, the differences in the execution of the teaching and learning activities or processes noted in the pre-teaching vocabulary, brainstorming and control (no-pre reading activity) groups were used to corroborate the learners' results in the reading comprehension test.

4.4.1 Findings from Pre-Teaching Vocabulary Classrooms

This study intended to establish the differences in the nature of teaching and learning in ESL language classrooms where pre-teaching vocabulary was done and those classrooms where there were no pre- reading activities at all. Specific pre-determined teaching and learning processes were listed for observation (Appendix 6). While the language teachers in the experimental group were informed and expected to apply the processes, those in the control group were asked to teach without using any one of the processes. However, the comprehension text used in both classes was the same. This would help establish the differences in teaching and learning between the two groups as seen in Table 4.11.

Table 4.11: Differences between Pre-Teaching Vocabulary and Control Classrooms

Teaching & Learning Processes/Activities	Pre-teaching Vocabulary	No Pre reading Activity
Teaching Processes	Observed (%)	Observed (%)
i. Clarifying objectives of session	71.4%	0
ii. Timing the session	100%	0
iii. Pre-testing new words	100%	0
iv. Presenting the new words	100%	0
v. Explicit teaching of words	100%	0
vi. Providing opportunity to practice	71.4%	0
vii. Post testing new words	71.4%	0
viii. Creating learner motivation	85.7%	0
ix. Developing vocabulary maps	85.7%	0
x. Teaching styles	100%	0
xi. Differentiating instruction	42.9%	0
xii. Use of teaching resources	100%	0
xiii. Eliciting prior knowledge	100%	0
xiv. Use of a 3-phase framework	100%	0
xv. Evaluating the session	100%	0
Learning Processes/Activities		
xvi. Practicing new words	71.4%	0
xvii. Doing a comprehension test	100%	100%
xviii. Learning styles	100%	0
xix. Learning motivation	100%	0
xx. Participation in spite of gender/school	100%	0

Effect at $p < .05$ value (F (2, 901) =11.562, $p = .000$).

Table 4.11 gives a summary of the findings on the differences between the Pre-Teaching Vocabulary and the No-Pre-Reading Activity Classes. The findings show that there was a clear difference between the Pre- teaching vocabulary and the control (No-Pre-Reading Activity) classes. The activities observed in the former were markedly unexecuted in the latter classroom, except for a common reading comprehension test. This explains why at $p < .05$ value (F (2, 901) =11.562, $p = .092$) there was no significant difference in the performance between pre-teaching vocabulary classes and brainstorming classes. Yet, the multiple comparisons (Table 4.10) shows there was a significant difference between the performance of students in

language classes that used Pre-teaching vocabulary and those in the control class. This study is cognizant that a comparison of the performance between pre-teaching and control classes was not one the objectives; however, the Tukey post hoc test was done just to reveal the effect of pre-teaching vocabulary, one of the two categories of the independent variable, on performance.

4.4.2 Findings from Brainstorming Classrooms

This study also examined the nature of teaching and learning in classrooms exposed to brainstorming and compared them with those taught without any pre-reading activities. Activities that constituted the teaching and learning processes in brainstorming sessions were described in guidelines shown in Appendix 5 and listed for observation in Appendix 7. The researcher shared the guidelines with teachers in the experimental group. So, the teachers and learners were expected to apply these guidelines as opposed to those in the control group so as to examine and precisely state the differences in the teaching and learning processes between the experimental and control groups as shown in Table 4.12.

Table 4.12: Differences between Brainstorming and Control Classrooms

Teaching and Learning Processes	Brainstorming	No Pre reading Activity
Teaching Processes	Observed (%)	Observed (%)
i. Clarifying objectives of activity	71.4%	0
ii. Timing the session	100%	0
iii. Generating questions/topics	100%	0
iv. Encouraging	100%	0
v. Facilitating the session	100%	0
vi. Differentiating instruction	71.4%	0
vii. Use of relevant teaching resources	100%	0
viii. Effective teaching styles	100%	0
ix. Integration of a 3-phase framework	100%	0
x. Evaluation of the session	100%	0
Learning Processes/Activities		
i. Compiling ideas	100%	0
ii. Ensuring relevance of the ideas	100%	0
iii. Doing a comprehension test	100%	100%
iv. Adoption of relevant learning styles	100%	0
v. Maintaining learning motivation	100%	0
vi. Participation in spite of gender/school	100%	0

Effect at p< .05 level (F (2, 901) = 11.562, P = .020)

Table 4.12 gives a summary of the findings on the differences between the Brainstorming and the control (No- Pre-Reading Activity) Classes. The findings show that the teaching and learning processes or activities that were conducted in a brainstorming classroom were not executed in the control classes, except of course for the common reading comprehension test that the two groups were subjected to. This study attributed the significant difference in the scores between brainstorming and Control class at p< .05 value (F (2, 901) =11.562, p = .020) to the difference in the activities executed in the two classes. Though a comparison of the performance between brainstorming and control classes was not one the objectives, the researcher conducted a Tukey post hoc test just to reveal the effect brainstorming, being one of the two categories of the independent variable, on performance.

4.5 Discussion of Study Findings

The purpose of this study was to determine the effect of pre-reading activities on reading comprehension performance in English Second Language (ESL) classrooms within selected secondary schools in Kakamega Central Sub County in Kenya, using concurrent parallel mixed methods design.

The study employed pre-teaching vocabulary and brainstorming to exemplify other pre-reading activities available to language teachers as pedagogical strategies. The findings were discussed under topics derived from the five objectives of the study. These objectives were to: establish differences in the nature of teaching and learning processes in language classrooms exposed to pre-teaching vocabulary and those that were not exposed to any pre-reading activities; examine differences in the nature of teaching and learning processes in language classrooms exposed to brainstorming and those that were not exposed to any pre-reading activities; assess if there was a difference in performance between learners that used pre-teaching vocabulary and those that used brainstorming; determine if pre-teaching vocabulary and brainstorming had a significant effect on performance in reading comprehension; and, determine which, between pre-teaching vocabulary and brainstorming had a more significant effect on performance of ESL learners in reading comprehension tasks.

4.5.1 Teaching and Learning in ESL Vocabulary Pre-Teaching Classrooms

This study intended to establish differences in the nature of teaching and learning processes in ESL classrooms exposed to pre-teaching vocabulary and those that were not exposed to any pre-reading activities. The researcher used an observation schedule to record findings in seven language classrooms where vocabulary pre-teaching sessions were conducted prior to reading a comprehension text by the ESL learners.

The schedule contained the activities intended for a vocabulary pre-teaching session as specified in a guideline shared with the language teachers prior to the session (Appendix 4). The control classrooms in each school were also observed. In these classrooms, learners were not exposed to any pre-reading activities, but rather, only read and attempted a common reading comprehension test as their counterparts in the experimental groups.

Regarding the nature of teaching and learning during vocabulary pre-teaching sessions, the findings generally revealed that generally, teachers in the experimental groups followed the guidelines set out for pre-teaching vocabulary. This resulted to the significant difference in the nature of teaching and learning between the experimental classrooms and control classrooms. This is suggestive of the need for teachers in ESL classrooms to embrace vocabulary pre-teaching as a pedagogical strategy. This finding agrees with Morrow (2003) who asserts that an effective comprehension and instructional program includes vocabulary instruction, for if readers cannot understand the individual words in a text, they will not be able to understand the complex relationships specified by words in sentences, paragraphs and passages.

All the teachers who used vocabulary pre-teaching as a way of introducing the reading lesson, integrated this activity into a three-phase framework. This supports the suggestion by Wallace in de Sousa (2012, p.25) that pre-reading activities should be integrated into a "classroom ritual" known as "three-phase-framework" constituting activities which "precede presentation of the text, those that accompany it and those which follow it". In addition, teachers used learning resources such as dictionaries and learners themselves to explicitly teach unfamiliar words. Explicit formal instruction

for vocabulary in second language learning is advocated for by Athiemoolam and Kibui (2012) because it allows learners to deal effectively with less frequent vocabulary than they encounter in context. To enhance learners' grasp of the taught vocabulary, a majority of teachers (85.7 %) in this study applied vocabulary maps, one of the numerous strategies suggested by McCollin, et al. (2010). For instance, teachers made use of synonyms and antonyms to teach new words identified in the text. Zarfsaz and Yeganehpour (2021) suggest selection and presentation to learners of unfamiliar vocabulary using synonyms and definitions based on their meanings in context.

The teachers carefully selected and taught words that jogged and refreshed learners' memory on events in the reading text, purposely to elicit learners' background knowledge. This agrees with views of Somayyeh and Hossein (2018) that pre-vocabulary instruction in language reading classrooms gives a brief summary of the content of the passage before the reading and helps the learners to activate the background knowledge to interact with the text successfully. In addition, Langer and Johnson in Yusuf (2011) say that pre reading activities, inclusive of pre-teaching vocabulary, have the facilitative effects of activating the reader's prior knowledge, making the reading easier by connecting the new concept more meaningfully to prior knowledge. The schema theory also supports the importance of pre-teaching vocabulary by building on what students already know.

Teachers in the vocabulary pre-teaching classrooms motivated learners through a combination of strategies such as co-operative learning in small groups, autonomy-supporting instruction and positive feedback. AEE (2004b) similarly argues that a co-

operative reading environment is a factor that increases motivation to read because it promotes discussion and socialization with classmates.

Teachers predominantly used interactive style in this experimental group. This, to an extent agrees with Morrow et al. (2003) that exemplary teachers provide opportunities to work individually and in collaboration with peers. Further, exemplary teachers provide instruction to meet individual needs; and, use variety of structures to meet individual needs when teaching such as whole group, small group and one-on-one instruction (Morrow et al, 2003). However, it was observed that only Forty-Two Point Nine percent (42.9%) of the teachers in vocabulary pre-teaching classrooms differentiated instruction. Otherwise, a majority of ESL teachers never paid attention to learners' unique language needs. This was inconsistent with Mukwa in Mwaka, Nabwire and Musamas (2014) who observes thus, "teachers must know their learners well and build on existing knowledge and abilities."

As for the nature of learning during vocabulary pre-teaching sessions, it was observed that in five sessions (71.4%) learners tried to construct novel sentences containing the newly learned vocabulary in an effort to retain the new words. This seemed to highlight an observation in a study by Piper, Sitabkhan, Mejja and Betts (2018) whereby a Kenyan teacher noted that it is not very easy to make a sentence using given words for the meaning to come out since some of the words are hard. Unlike the present study in which teachers planned for pre-teaching vocabulary before the lesson, Piper et al (2018) found that pre-reading activities were least explicitly scripted in the Kenyan teachers' guides (lesson plans). This study therefore reiterates that pre-reading activities should be incorporated in the three-phase-framework of teaching reading comprehension, with a clear plan on how to undertake it in the

reading lesson. The framework constitutes pre-reading, while reading and post-reading.

The study revealed that a majority of the learners (57.1%) were not motivated to learn new vocabulary. Despite that Eighty-Five Point Seven percent (85.7%) of teachers employed numerous strategies to motivate them during the vocabulary pre-teaching session, they seemed not stimulated enough to learn unfamiliar words. This seems to disapprove studies by Yeeding (2007) and Taglieber, Johnson and Yarbrough (1988) which found that the use of pre-reading activities made learners highly motivated and enthusiastic to read. This could imply that ESL are not as motivated to read when pre-reading activities are used as their L1 counterparts. The study also found out that in five sessions (71.4%) involving boys' girls' & mixed schools, classified either as County or Sub-County, the learners were generally active. This finding revealed that considerations such as status of school and/or gender of learners do not influence learners' level of participation in vocabulary pre-teaching sessions.

4.5.2 Teaching and Learning in ESL Brainstorming Classrooms

The study also wanted to examine differences in the nature of teaching and learning processes in classrooms exposed to brainstorming and those that were not exposed to any pre-reading activities. As in the case of vocabulary pre-teaching sessions, the researcher similarly used an observation schedule to record findings in seven experimental ESL classrooms where learners brainstormed key topics or questions based on a given text, prior to reading the text itself. The schedule specified the kind of activities intended for the brainstorming sessions (Appendix 7). The study recorded observations in the control classroom and compared them with the brainstorming ESL classrooms separately.

The findings on the nature of teaching and learning in brainstorming ESL classrooms generally revealed that the teachers in ESL brainstorming classrooms followed the guidelines provided for brainstorming (Appendix 5). Therefore, a significant difference was observed between the experimental group and the control group. The brainstorming session was distinct since as Wallace (2003, p. 91) puts it, it "may take the form of giving the class a particular key word or key concept, or it may be a newspaper headline or book title", unlike a classroom without brainstorming sessions or any other pre- reading activities. With regard to teaching, the pedagogical plan was closely followed in the experimental group, whereby teachers clarified the session objectives to the learners; a time limit was set, knowing that the session was merely a preamble for the main reading comprehension lesson; an integration of the brainstorming session into the three-phase framework was observed; teachers also evaluated the session through questions posed to the learners during and after presentations. This finding contradicted the finding by Piper, Sitabkhan, Mejia and Betts (2018) that teachers found some activities difficult to teach.

To ascertain if brainstorming guidelines were adhered to for an effective session, the study found that in all (100%) of the ESL brainstorming sessions, teachers encouraged learners to come up and discuss as many ideas as possible by clarifying that the discussion was not a contest to determine winners or losers; facilitating or moderating the session by overseeing the groups' activities; motivating learners to actively engage in the session through co-operative learning, autonomy-supporting instruction and even giving positive feedback; individualizing and differentiating instruction to meet learners varied language needs. These findings corroborate Ghabanchi and Behrooznia's (2014) view that brainstorming can be an effective

strategy in teaching English as a foreign language (FL) since it can motivate a group of learners to generate a large number of ideas.

To enhance discussions during the session, the study found that in all the seven brainstorming sessions (100%) teachers almost exclusively used resources such as the chalkboard, on which discussion questions were written; and learners, who were used for peer teaching. In terms of teaching style, teachers in a majority of the sessions (57.1%) mainly used the interactive mode. Additionally, a majority of teachers (71.4%) prepared brainstorming topics that were geared towards enabling learners to tap into their experiences or background knowledge to better understand events in the text to be read. In fact, Labiod (2007) concludes that brainstorming activates prior knowledge, which enhances learners reading comprehension. It has been suggested that one of the main benefits of brainstorming is the activation of readers' prior knowledge (Ghabanchi and Behrooznia, 2014)

With regard to learning during the ESL brainstorming sessions, the study found that in all the seven sessions (100%) teachers would apply a variety of learning styles such as auditory, visual, tactile, kinesthetic in a single session. In addition, learners were highly motivated. The study attributed this to impactful strategies such as co-operative learning in small groups, autonomy-supporting instruction and positive feedback by teachers. This finding agrees with Mongeau and Morr (1999, p. 14) who say that brainstorming is a "method of ideation" in which a group of learners are motivated to generate a large number of ideas. Like for the case of vocabulary pre-teaching ESL classrooms, the study found that in a majority of the brainstorming sessions (71.4%) that included County boys', girls' and even Sub-County mixed institutions, learners were generally active.   This finding therefore implies that the status of a school or

gender of learners are variables that do not significantly influence participation in ESL brainstorming sessions.

4.5.3 Learner Performance in Pre-Teaching Vocabulary and Brainstorming ESL Classrooms

From the foregoing discussion, the study ascertained that there were differences in teaching and learning processes between experimental and control classrooms. This study then endeavoured to assess if there was a difference in performance between learners that used pre-teaching vocabulary and those that used brainstorming. To achieve this, the researcher administered a common reading comprehension test in classrooms where pre-teaching vocabulary and brainstorming sessions were used as well as in the classrooms where no any pre-reading activities were used at all – control group.

One-Way Analysis of Variance (ANOVA) was run on SPSS to compare the mean performance of the three groups (vocabulary pre-teaching, brainstorming and control). Results of the ANOVA revealed that there was no significant difference in performance of learners in reading comprehension between ESL classrooms where teachers used pre-teaching vocabulary and brainstorming. At $p< .05$ level, the key independent variables (pre-teaching vocabulary and brainstorming) posted different means. Specifically, pre-teaching vocabulary posted a mean score of (M=10.21, SD=4.429) which was slightly different from brainstorming (M=9.45, SD=4.489). Therefore, the null hypothesis which stated that there is no statistically significant effect on the performance of ESL learners in reading comprehension when pre-teaching vocabulary and brainstorming are used as teaching strategies was rejected. From these findings, it is important for teachers to know that their learners may

perform differently in comprehension tasks when exposed to different pre-reading activities as a pedagogical strategy. As such, this study reinforced the assertion by Hedge (2000) that language teachers may select or combine from a repertoire of activity types during pre-reading stage. However, the possible differences may arise due learner, teacher or environment-related factors and not necessarily and entirely on the type of activity. In the observation schedules for pre-teaching vocabulary and brainstorming (Appendix 6), the researcher observed aspects of individual differences such as learning styles, teaching styles, differentiated instruction and levels of motivation.

4.5.4 Effect of Vocabulary Pre-Teaching and Brainstorming on Comprehension Performance

Having assessed and found that a significant difference exists in the performance of learners in reading comprehension tests between classes exposed to vocabulary pre-teaching and brainstorming language sessions, this study also endeavoured to determine the precise effect of each of these pre-reading activities on the performance of ESL learners in reading comprehension. After running ANOVA on SPSS to determine tests of between-subjects effect, the study found that at $p < .05$ level, both pre-teaching vocabulary and brainstorming [F (1, 596) = 4.541, p= .034] were reading instructional strategies that had a statistically significant effect on performance of ESL learners in the reading comprehension test. As such, the null hypothesis which stated that there is no statistically significant effect on the performance of ESL learners in reading comprehension when pre-teaching vocabulary and brainstorming are used as teaching strategies was rejected.

The study therefore found that both pre-teaching vocabulary and brainstorming had a significant effect on performance of ESL learners in reading comprehension tests. Though these findings were based on ESL reading classrooms in Kenya, they agree, correspond with, and even elaborate findings of earlier studies on L1 learners which indicate that comprehension increases when teachers use strategies that focus on teaching vocabulary before beginning instruction (Connor & Lagares, 2007; Hall, 2004; Swanson, et al., 2015; Myers and Savage, 2005; McClanahan, 2009; McCollin et al., 2010; Minarik and Lintner, 2011; Vaughn et al., 2013). The current study also agrees with Ghabanchi and Behrooznia (2014) that brainstorming is an effective strategy in teaching English as a foreign language (FL), and has a significant role in improving the participants' reading comprehension.

In view of these findings, the study therefore has addressed the knowledge gap established between the apparent routine practice of teaching and learning of reading comprehension in ESL classrooms and the performance of learners in reading comprehension examination in Kenya. ESL learners in Kenya are usually exposed to a variety of reading texts in language classrooms, which as Headley and Dunston (2000) argue, develops these learners' background knowledge. Also, intensive and extensive reading are adequately provided for by the English language syllabus in Kenya (KIE, 2002) and practised by teachers and learners with a view to enhance achievement of learners in reading comprehension. However, KCSE annual reports and specifically, KCSE results analyses for Lurambi Sub County in Kakamega, Kenya have revealed that learners continue to score below fifty percent (50%) in reading comprehension (KNEC, 2016 – 2022). The findings of this study therefore indicate that language teachers in ESL classrooms in Kenya need to embrace and

appropriately plan for the use of pre-reading activities to improve performance of their learners in reading comprehension.

4.5.5 Determining the Pedagogic Strategy with a Greater Impact on Reading Performance

Finally, this study intended to determine which, between pre-teaching vocabulary and brainstorming had a more significant effect on performance of ESL learners in reading comprehension tasks. The findings showed that at $p< .05$ level, neither of the two strategies had a more significant effect than the other [F (2, 901) = 11.562, p= .092]. Therefore, this study accepted the null hypothesis which stated that there is no statistically significant difference in the effect of pre-teaching vocabulary and brainstorming on performance of ESL learners in reading comprehension tasks. Therefore, language teachers need to skillfully plan and execute their reading lessons by applying these pre-reading activities as strategies for activating learners' background knowledge with the goal of increasing comprehension of texts. According to KNEC (2022, p.3), this will help students "to recall needed information from texts and make necessary inferences…" and hence, improve their performance in reading tests. This study corroborates Maingi's (2015) view that understanding and use of pre-reading instructional strategies helped learners to create a mental alignment that is useful for facilitating reading comprehension. Thus, the current study advances views of Rasinski in Morrow, Linda and Michael (2003, p.10) that "the foundation to instructional practice, regardless of one's theoretical or pragmatic orientation to reading, is the goal of improving reading achievement for all learners." Yusuf (2011) identifies many pre-reading activities that arouse interest on purpose and content of the text, as well as value of the information in the text. However, the findings in this study indicated that there is need for careful selection, planning and use of pre-reading

activities to improve comprehension for ESL learners and enhance performance in reading comprehension tests.

4.6 Findings in Relation to the Theoretical Framework and Research Paradigm

This study adopted the schema theory and its attendant models, namely; Reading Comprehension as a Socio-Cognitive processing model (Ruddell & Ruddell, 1994) and Reading Comprehension as a Transactional Socio-Psycholinguistic model (Goodman, 1994). This theory and or models posit that reading comprehension involves constructing meaning through negotiation or interactions between readers, text and the social context in which reading is taking place (language classroom). The theory highlights the view that interaction between knowledge from past experience (background knowledge) and encountered discourse or text is necessary for constructing meaning. In view of the findings of this study, the researcher proposes a pedagogical schema-based model appropriate for teaching reading comprehension in ESL classrooms. The suggested model clarifies that during the encounter between the reader and a text, comprehension is readily achieved if the reader's past experiences are consciously triggered using appropriate schema-activating pre-reading activities. In the context of this study, the focus was placed on pre-teaching vocabulary and brainstorming to exemplify such schema activating activities applicable in the language classroom during reading comprehension lessons.

The study findings also have a bearing on the ontological and epistemological positions taken by the researcher. Crotty (2003) argues that ontology is concerned with the kind of world we are investigating, the structure of reality. This scholar adds, on the other hand, that epistemology is a way of understanding and explaining how we know what we know. That epistemology is "concerned with providing a

philosophical grounding for deciding what kinds of knowledge are possible and how we can ensure that they are both adequate and legitimate (Crotty, 2003, p. 8).

This study takes a relativist ontological perspective in view of to the established findings. In this perspective, reality is constructed within the human mind such that no one 'true' reality exists; instead, reality is relative to how individuals experience it at any given time and place. There were differences in ESL language classroom contexts, individual differences among learners and teachers that might have resulted in the differences in performance between the two experimental groups on the one hand, and between the experimental and control groups on the other hand. In terms of the epistemological perspective, this study applied the constructionist view. Crotty (2003, p. 42) says that constructionist epistemology is "the view that all knowledge and therefore all meaningful reality as such is contingent upon human practices, being constructed in and out of interaction between human beings and their world and developed and transmitted within an essentially social context". This view holds that 'truth' or meaning arises in and outside our engagement with the realities of our world. This helped the study to generate contextual understanding of the study problem and to ensure that the kinds of knowledge generated were adequate and legitimate.

Both qualitative and quantitative data were collected, using various or multiple ways. Adequacy and legitimacy of generated knowledge was achieved by pursuing a variety of methods to make the claims about reality of the classroom world stronger. This study therefore used pragmatism as the applicable research paradigm. Onwugbuzie (2009) says that for a pragmatist, there may be various or multiple ways of arriving at the reality.

4.7 Chapter Summary

This chapter presented, analyzed and interpreted data and discussed the key findings according to the objectives of the study. The findings were on the nature of teaching and learning processes or activities in ESL pre-teaching vocabulary and brainstorming classrooms. There were also findings on the differences in the performance between pre-teaching vocabulary and brainstorming classrooms. The effect of pre-teaching vocabulary and brainstorming on performance was then determined. A comparison of the results for learners who were pre-taught vocabulary and those who brainstormed to determine which of the two pre reading activities had a more significant impact on performance was made. The findings from the observation schedule and the reading comprehension test were converged in line with the convergent parallel mixed methods design. Finally, the study findings were explained in relation to the underpinning theory, and another model proposed in view of the findings. The researcher also clarified his ontological and epistemological position as a result of the findings. The findings of the study can be generalized to all public schools in Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of key findings of the study. These were findings pertaining to: the nature of teaching and learning in vocabulary pre-teaching classrooms; nature of teaching and learning in brainstorming classrooms; differences in performance of vocabulary pre-teaching and brainstorming classrooms; effect of pre-teaching vocabulary and brainstorming on performance; and lastly, a comparative analysis of the impact of pre-reading activities on performance in reading comprehension. On the basis of the key findings, the study made elaborate conclusions, recommendations and suggestions for further research.

5.2 Summary of Key Findings

This section presents a summary of the key findings made in relation to the objectives of this study. The objectives were to: establish the differences in the nature of teaching and learning processes in the classrooms exposed to pre-teaching vocabulary and those that were not exposed to any pre-reading activities; examine the nature of teaching and learning processes in classrooms exposed to brainstorming and those that were not exposed to any pre-reading activities; assess if there was a difference in performance between ESL learners that used pre-teaching vocabulary and those that used brainstorming; determine if pre-teaching vocabulary and brainstorming had a significant effect on performance in reading comprehension; and lastly, compare the impact of pre-teaching vocabulary and brainstorming on achievement in reading comprehension to determine which of the two pre-reading activities had a more significant effect on performance of ESL learners in reading comprehension.

5.2.1 Nature of Teaching and Learning in Vocabulary Pre-Teaching Classrooms

The first objective of this study was to establish the differences in the nature of teaching and learning processes in classrooms exposed to pre-teaching vocabulary and those that were not exposed to any pre-reading activities. The researcher prepared the guidelines (Appendix 4) for pre-teaching vocabulary and shared them with teachers in classes where this pre-reading activity was utilized. On the basis of these guidelines, the researcher listed processes to be observed in a schedule (Appendix 6). Using the schedule, the researcher therefore observed and compared teaching and learning processes in classrooms where pre-teaching vocabulary was undertaken and classrooms where the reading comprehension lessons were executed without any pre-reading activities. This study found that there were differences in the nature of teaching and learning in the classrooms with pre-teaching vocabulary and those without any pre reading activities.

5.2.2 Nature of Teaching and Learning in Brainstorming Classrooms

The second objective of the study was to examine differences in the nature of teaching and learning processes in classrooms exposed to brainstorming and those that were not exposed to any pre-reading activities. Again, the researcher prepared guidelines (Appendix 5) on processes of brainstorming and agreed with the language teachers on how to execute them in their reading comprehension lessons. The researcher then prepared an observation schedule (Appendix 6) from the guidelines to be used for observation and comparison of teaching and learning processes in classrooms where learners were exposed to brainstorming and those in which no any pre reading activities were used at all. This study also found that there were differences in the nature of teaching and learning between classrooms where brainstorming was used and those where no any pre reading activities were used.

5.2.3 Differences in Performance of Pre-Teaching Vocabulary and Brainstorming Classrooms

The third objective of the study was to assess if there was a difference in performance between learners that used pre-teaching vocabulary and those that used brainstorming. The learners in the classrooms with pre-teaching vocabulary, brainstorming and those without any pre reading activities were subjected to the same reading comprehension test. The test results were used to run a One-Way Analysis of Variance (ANOVA) on SPSS to compare the performance of learners in reading comprehension in classrooms where pre-teaching vocabulary and brainstorming were used. The study found that the mean score for pre-teaching vocabulary (M = 10.21, SD = 4.429) was slightly different from the mean score for brainstorming (M = 9.45, SD = 4.489). The findings therefore suggested that the difference in performance of Kenyan ESL learners on a reading comprehension test between classrooms where teachers used pre-teaching vocabulary and where they used brainstorming was negligible.

5.2.4 Effect of Pre-Teaching Vocabulary and Brainstorming on Performance

The fourth objective of the study was to determine if pre-teaching vocabulary and brainstorming had a significant effect on performance in reading comprehension. Analysis of variance (ANOVA) was conducted on the results of the reading comprehension test for classrooms with pre-teaching vocabulary, brainstorming and those without any pre reading activities. The study conducted ANOVA on SPSS to determine tests of between-subjects effect and found that at $p < .05$ level, both pre-teaching vocabulary and brainstorming [$F (1, 596) = 4.541$, $p = .034$]. This finding showed that both pre-teaching vocabulary and brainstorming were reading instructional strategies that had a statistically significant effect on performance of Kenyan ESL learners in the reading comprehension test.

5.2.5 Comparing Effect of the Pre-Reading Activities on Performance in Reading Tasks

The final objective of the study was to compare the impact of pre-teaching vocabulary and brainstorming on achievement in reading comprehension to determine which of the two pre-reading activities had a more significant effect on performance of ESL learners in reading comprehension tasks. On the basis of findings for ANOVA and Tukey post hoc test for multiple comparisons this study found that at $p < .05$ level, neither pre-teaching vocabulary nor brainstorming had a more significant effect than the other [$F (2, 849) = 11.562$, $p = .092$). These results imply that both pre-teaching and brainstorming had a significant effect on the performance of Kenyan ESL learners in a reading comprehension test, and should both be embraced equally as strategies for teaching reading comprehension by language teachers.

5.3 Conclusion

In view of the findings, the following conclusions in accordance with the variables in this study:

1. Nature of Teaching and Learning in Classrooms with Vocabulary Pre-Teaching Sessions.

   On this variable the study concluded that;

   a) Teachers specified the objective and duration for vocabulary pre-teaching sessions and incorporated the activity in the three-phase framework of pre-, during and post-reading for a reading comprehension lesson. This was done to avoid spending the entire reading lesson on the pre-reading activity alone;

b) Teachers who pre-tested and post-tested the selected vocabulary were able to determine if learners gained required understanding of the taught vocabulary. Knowledge of the selected and taught vocabulary was internalized by the learners through practice, which helped to determine effect of the session on reading comprehension;

c) Teachers used strategies that enhance learner motivation during vocabulary pre-teaching. Such strategies included co-operative learning in small groups, autonomy supporting instruction and positive feedback. Teachers' use of learner-centred teaching style also provided a motivation for learners.

d) Teachers made use of appropriate of teaching resources to facilitate vocabulary pre-teaching. Such resources included dictionaries, learners themselves (peer teaching), and textbooks;

e) Teachers were unable to explicitly differentiate instruction during the vocabulary pre-teaching session. They only attempted to individualize attention for some learners during the session. Teachers were unable to apply other mechanisms for differentiated instruction shared with them such as differentiating lists of words for learners; differentiating techniques for vocabulary pre-teaching for learners; differentiating group activities (Appendix 4);

f) The selection of words prior to the pre-teaching session was done carefully to help learners reflect on the events in the text to be read. This elicited the learners' background knowledge, a useful component for enhancing comprehension as advocated for in a model proposed by this study; and,

g) A majority of learners were accorded an opportunity to generate own sentences as a way of practicing taught vocabulary;

h) Learners used a variety of learning strategies to learn new vocabulary such as visual, auditory, and social (use of groups). The use of these strategies resulted to a majority of learners (57.1%) being fairly motivated to learn vocabulary;

i) All learners are capable of actively engaging in vocabulary pre-teaching sessions with a fair amount of motivation, regardless of their school type or gender of learners, as long as learner-centred strategies are applied.

j) In a nutshell, the instructional activities of Kenyan ESL learners in classrooms where vocabulary pre-teaching was used as a pedagogical strategy were notably different and distinguishable from the control classrooms - suggestive of the need for teachers in ESL classrooms to embrace vocabulary pre-teaching.

2. Nature of Teaching and Learning in Brainstorming Sessions.

On this variable, this study concluded that;

a) All the teachers in the brainstorming classrooms (100%) specified a time limit and objective for the session, and integrated it in a three-phase framework of pre-, during and after reading with the intention to save on time for the rest of the reading comprehension lesson;

b) Teachers generated brainstorming questions to help learners generate ideas, though they failed to give sub-questions or sub-topics to guide learners on specific areas of discussion. However,

teachers encouraged learners by moderating discussions, giving every learner a chance to speak without creating the feeling of winners and losers;

c) Teachers used two key resources to implement brainstorming sessions: they wrote questions or topics on the chalkboard to, and used learners themselves for peer teaching.

d) In four out seven brainstorming sessions (57.1%) teachers mainly used the interactive teaching style. This, together with strategies such as co-operative learning and autonomy-supporting instruction applied by teachers enhanced learner motivation; and,

e) All the learners in the brainstorming language classroom wrote down and presented relevant ideas after their brainstorming session;

f) Indeed, the activities in language classrooms where the teachers and learners used brainstorming as an instructional strategy were different from the language classrooms that had no any pre reading activities at all.

3. Difference in performance between vocabulary pre-teaching and brainstorming classrooms.

On this variable, the study concluded that;

a) At $p < .05$ level, there was a negligible difference in the performance means in the reading comprehension test between ESL learners in language classrooms where teachers used pre-teaching vocabulary ($M = 10.21$, $SD = 4.429$) and those where

brainstorming was used (M =9.45, SD = 4.489). It therefore is important for teachers to know that both strategies are equally useful in teaching reading comprehension for purposes of improving performance of ESL learners.

4. Effect of pre-teaching vocabulary and brainstorming on performance.

On this variable, the study concluded that;

a) At p< .05 level, both pre-teaching vocabulary and brainstorming [F (1, 596) = 4.541, p= .034] had a significant effect on the performance of Kenyan ESL learners in reading comprehension tests.

5. A determination as to which pre-reading instructional strategy had a greater effect on learners' performance in reading comprehension test.

a) At p< .05 level, neither pre-teaching vocabulary nor brainstorming [F (2, 901) = 11.562, p = .092] had a greater effect on performance in reading comprehension test than the other.

5.4 Recommendations

This study intended to determine the effect of pre-reading activities, namely pre-teaching vocabulary and brainstorming, on performance of learners in reading comprehension. The findings showed that these instructional activities had a significant effect on the performance of learners in a reading comprehension test. The findings have implications on the teaching and learning in the Kenyan ESL classrooms, as well as the ministerial policy frameworks pertaining to teacher training, preparation of teaching and learning materials. In light of the findings and implications of the study, the following recommendations were made:

1. Universities and teacher training colleges should inculcate the need for pre-service and in-service language teacher trainees to incorporate pre reading activities during preparations for their reading comprehension lessons. This can be realised while planning for lessons in micro teaching skills, practicum and continuous professional development for teachers. In this manner, planning for pre reading activities would become a professional culture for ESL teachers in Kenya and would help improve performance of learners in reading comprehension.

2. The Ministry of Education through its relevant agencies should impress upon publishers to prepare English language learner course books and teacher guides which have adequate and varied pre reading activities for every comprehension unit. Only then should such materials be approved and certified for use in both public and private schools.

3. Language teachers in Kenya should particularly embrace the use pre-teaching vocabulary and brainstorming as pedagogical strategies and incorporate them in the three-phase framework of teaching reading comprehension. This is to suggest that these pre reading activities should become a needful instructional strategy to be used ahead of all intensive and extensive reading sessions in ESL language classrooms.

4. ESL learners should be encouraged and accorded opportunities to participate in vocabulary learning and brainstorming activities prior to reading a text, to awaken their background knowledge so that they can reliably predict information in the new text.

5.5 Suggestions for Further Research

This study looked at the effect of only two pre reading activities on reading comprehension performance of ESL learners in public secondary schools in Kenya. There are very many other pre reading activities which language teachers and learners could use in their reading comprehension lessons. The study therefore suggests that further research is conducted in the following areas:

a) An exploration of pre reading activities in the ESL classrooms in Kenya.

b) A comparative Analysis of the effect of pre reading activities on performance of first and second language learners.

c) The impact of pre reading activities on the performance of ESL learners in private secondary schools in Kenya.

d) Determining the effect of post reading activities on reading comprehension performance of ESL learners in Kenya.

e) Pre reading and Post reading Activities in ESL classrooms: A comparison of their effects on performance in reading comprehension.

5.6 Chapter Summary

In this chapter, the study presented a summary of the key findings on: the nature of teaching and learning in classrooms where pre-teaching vocabulary and brainstorming were conducted; the differences in the performance of learners in pre teaching vocabulary and brainstorming classrooms; the effect of pre teaching vocabulary and brainstorming on performance; and, determining which, between pre-teaching vocabulary and brainstorming, was the pedagogical strategy with a greater effect on reading comprehension performance. The conclusions and implications of the findings of this study were also made, upon which recommendations to the Ministry

of Education, teacher training institutions, classroom teachers and ESL learners were given. Suggestions for further research were provided.

To conclude, the researcher hopes that the findings of the study would provoke more insights in the community of language scholars, teachers and learners so as to develop more discussions and research on reading comprehension instruction, especially with regard to pre-, during and post reading activities. The recommendations made are also expected to go a long way to benefit the education stakeholders in terms of improving policy frameworks and the practice of English language teaching and learning.

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APPENDICES

Appendix 1: Letter of Introduction

Dear Respondent,

I am a Doctor of Philosophy (D.Phil.) student pursuing English Education at Moi University, Eldoret (Kenya). I am carrying out research to *determine the Effect of Pre-reading Activities on Performance of Reading Comprehension Tasks in the Language Classrooms in Kenya*. You are therefore kindly requested to assist in this research by selecting, teaching reading comprehension and testing students in research classrooms.

The researcher requests to use **three** Form Two classes that will be observed and tested during classroom reading comprehension lessons. Two of the classes, the experimental groups, will be exposed to pre-teaching vocabulary and brainstorming activities prior to reading a selected passage while the third, the control group, will read the comprehension passage without exposure to any pre reading activities. The three classes will then be tested. Your participation and views, and those of others involved in this study will greatly be beneficial to the study. Your views will strictly be used for purposes of the study and treated with utmost confidentiality.

Do not put your name on the instrument.

Thank you.

Mutaliani Solomon Manjinji

EDU/D.DHIL.CM/1008/16

Moi University,

Department of Curriculum, Instruction and Educational Media

P.O. Box 3900,

Eldoret, Kenya.

Appendix 2: Reading Comprehension Test

Read the passage below and answer the comprehension questions that follow:

<u>**GENDER AND SOCIETY**</u>

Although Kenya has made significant **strides** to promote gender equality and the empowerment of women and girls in various aspects of public and private life, there is still much to do.

Girls are still less likely to transition to and complete tertiary education than boys. Only 3 per cent go to university as per studies by the Dalberg Group, which has helped more than 15 million children in Africa and Asia, especially girls, develop literacy skills over five years.

Kenya's progressive 2010 constitution introduced new gender equality legislation that supersedes customary laws on issues such as resource ownership and court representation. The share of parliamentary seats occupied by women has doubled since 2012, from 9.8 per cent to 22 per cent. Compulsory free education has helped boost female enrolment in schools by 39 per cent in the last 15 years. Girls and boys now have near-equal access to primary and secondary schooling. Free health services for pregnant women have boosted the share of births attended to by health professionals, leading to a 33 per cent decline in maternal mortality. And, two-thirds of women have access to modern contraceptives.

But our research shows although a university degree can help increase family incomes fivefold, many girls drop out of tertiary education because they can't afford it or because they have children. The chance of a 20-year-old woman in Kenya becoming a single mother is still close to 20 per cent (though the number is declining).

So how do we address this? The typical approach of providing equal access to education and healthcare, while **laudable**, is not enough. In addition to challenges on these fronts, girls and women face a host of social and cultural barriers that prevent them from realizing their potential.

Women and girls shoulder a disproportionate domestic care burden and have difficulties travelling due to safety concern. They also suffer psychological and

physical damage from gender-based violence and enjoy limited decision-making power in patriarchal families and communities.

Imagine getting a job offer that requires regular night shifts, but having no safe way to commute; imagine having access to training on better farm management, but only at the time you are expected to cook at home; imagine receiving a university scholarship but having no clear role models to help navigate the difficult balance between academic, professional and familial responsibilities. Building blocks for a more gender-equal society are captured in a report we recently published in partnership with Standard Chartered Bank titled: *Girl's Economic Empowerment in Africa and Asia: What it takes, what's working, and What Still Needs to Be Done.*

They include: Creating forums for partnership and coordinated action to tackle multiple gender-related issues. Providing more grants, investment funding and better access to finance for small-scale grass roots organizations and female entrepreneurs. Engaging gatekeepers in **gender empowerment** initiatives to reach women and girls more effectively. Boys, men and older women with significant influence can play an important role in decisions, welfare, self-respect and confidence of women and girls among others.

(Adapted from an article, *Reflections on a more gender equal society*, in the Saturday Nation Newspaper, December 22, 2018)

Questions

i. Who is the speaking in this passage? Explain your answer.   (3 Marks)

    …………………………………………………………………………………
    …………………………………………………………………………………

ii. According to the passage, what shows that a lot still needs to be done to promote a gender equality and women empowerment in Kenya? (3 Marks)

    …………………………………………………………………………………
    …………………………………………………………………………………

iii. Why do you think Kenya's 2010 constitution is described in this passage as progressive? (3 Marks)

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iv. Outline any **three** challenges of the typical way of providing equal access to education and healthcare as shown in this passage.

(3 Marks)

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v. Identify any **three** things that should be done to ensure a more gender equal society? (3 Marks)

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vi. What is the writer's feeling about the possibility to attain a gender equal society? Illustrate your answer. (3 Marks)

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vii. Rewrite the following sentences according to the instruction given. (3 Marks)

a) Girls are less likely to transition to and complete tertiary education than boys.

(Begin: Boys are … than girls.)

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……………………………………………………………………………………

b) Free health services for pregnant women have boosted the share of births …
(Use a word with the same meaning as 'pregnant').

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………………………………………………………………………………

c) Girls are still less likely to transition to and complete tertiary education than boys… (Supply a suitable tag question).

viii)   In your opinion, can a more gender equal society be realized? Explain your answer.   (3 Marks)

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x)   With a suitable illustration, show how the writer's argument does not undermine men in society.   (3 Marks)

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………………………………………………………………………………

xi)   Use the following words and expressions to construct grammatical sentences of your own: (3 Marks)

Strides: …..………………………………...…………………………………

Laudable: …………………………………………………………………

Gender empowerment: …………………………………….………………

Appendix 3a: Content Analysis Tool, Part 'A' (Marking Guide)

i. A gender activist/supporter√. The typical approach of providing equal access to education and healthcare, while laudable, is not enough√√ (***ident. 1 mark, explain. 2 marks***)

ii. -Girls are still less likely to transition to√ and complete tertiary education than boys√

-Only 3% go to university as per studies by Dalberg Group√ (***1 mark each= total 3 marks***) iii. –It introduced new gender equality legislation that supersedes customary laws on issues such as resource ownership and court representation;

-The share of parliamentary seats occupied by women has doubled since 2012;

-Compulsory free education has helped boost female enrolment in schools by 39%;

-Girls and boys now have near-equal access to primary and secondary schooling; -Free health services for pregnant women have boosted the share of births attended to by health professionals, leading to a 33% decline in maternal mortality;

-Two-thirds of women have access to modern contraceptives. (***Any 3 points, 1 mark each= total 3 marks***)

iv. –Women face a host of social and cultural barriers that prevent them from realizing their potential;

-women and girls shoulder a disproportionate domestic care burden;

-They have difficulties travelling due to safety concerns;

-They suffer psychological and physical damage from gender-based violence;

-Have limited decision making power in patriarchal families and communities. (***Any 3, 1 mark each= total 3 marks***)

v. –Creating forums for partnership and coordinated action to tackle multiple gender-related issues.

-Providing more grants to female entrepreneurs;

-Providing investment funding and better access to finance for small scale grass roots organizations and female entrepreneurs;

-Engaging gatekeepers in gender empowerment initiatives to reach women and girls more effectively. (*Any 3, 1 mark each=total 3 marks*)

vi. The writer hopes/ is hopeful/optimistic√ that a gender equal society is attainable. – acknowledges that Kenya has made significant strides to promote gender equality√√ (***Allow any other relevant illustration/explanation- 1 mark ident. of attitude, 2 marks for illustration= total 3 Marks***)

vii. a) Boys are <u>more</u> likely to transit and complete tertiary education than girls (*1 mark*)

b) Free health services for <u>expectant</u> women have boosted the share of births…   (*1 mark*)

c)<u>,</u> don't they<u>?</u> (*1 mark*)

viii. –Accept students' answers as long as the opinions are supported with relevant explanations

(***Candidate's position√, explanation√√ = 3 marks***)

ix. Boys, men and older women with significant influences can play an important role in decisions, welfare, self-respect and confidence of women and girls among others√√ (*double tick*).

x. Expect **three** grammatically correct sentences (*marked 1 mark each= total 3 marks*)

Appendix 3b: Content Analysis Tool, Part 'B' (A Taxonomy of Cognitive Test Items)

Classification of the Test Items (Cognitive Domain)	Total Allocated Marks per Domain	No. of Questions per Domain
▪ Remembering/Knowledge	9	3
▪ Understanding/Comprehension	6	2
▪ Application/Applying	6	2
▪ Analysis/Analyzing	3	1
▪ Evaluation/Evaluating	3	1
▪ Synthesis/Creating	3	1
Total	**30**	**10**

Appendix 4: Guidelines for Pre-Teaching Key English Vocabulary

1. **Select/identify essential vocabulary**
   - Select key words that are essential to understanding the text
   - Limit the selection to five or six key words from the text to avoid overwhelming learners

2. **Pre-test**
   - Give the learners a quick pre-test to assess their current knowledge of the selected words.
     Either:
       o Match words with pictures or meanings, or
       o Provide at least three answer multiple choices for each word
   - Keep it simple to score your pre-test quickly
   - The learners scores should tell you which words to focus on more

3. **Prepare a presentation of each word**
   - Use PowerPoint to project the words, or large posters with photographs
   - Include in each word presentation:
       o The vocabulary word in large bold print o A concise, student friendly definition
       o Large eye catching visual that clearly represents the word o A sentence using the word in context

   NB: Students need 10-15 exposures to a word before it becomes a permanent part of their word bank

4. **Explicitly teach each word**
   - Introduce the word, its meaning, and a sentence with the word used in context
   - Ask students to repeat the word and meaning after you
   - Engage your students in a lively discussion about the word. Use strategies such as:
       o Dialogue: make them share personal experiences and connections to the word o Gestures: to reinforce meaning of new vocabulary o Word study: for example, ask students to chop each word in to syllables by clapping; point out prefixes and suffixes connected to the root; and call

attention to how their individual meanings help to determine the meaning of the word

- o Connect word to text: create a connection between the word you use and the text they are getting ready to read (to see the words in context)
- o Expand on word meanings

5. Provide many opportunities for practice
- Create word map

DEFINITION:

ILLUSTRATION:

WORD:

SENTENCE:
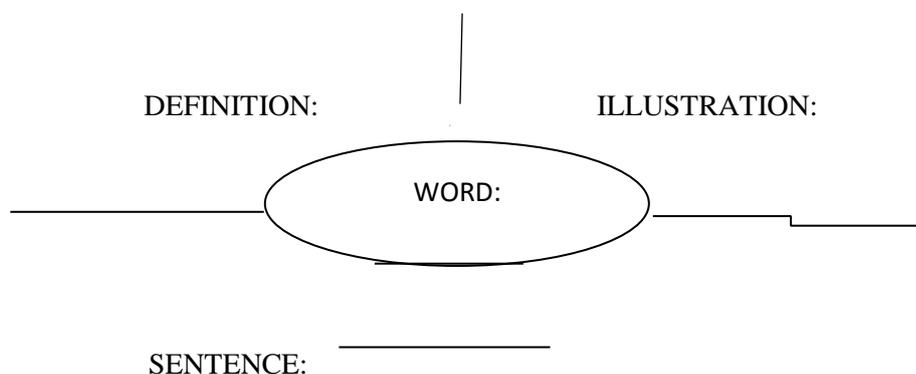
- Facilitate word retention by o Letting learners to actually use their new words in cooperative activities as well as independently
  - o Tapping into all the four language domains: speaking, listening, reading and writing.
  - o Model oral and written sentences using the new vocabulary, and provide the learners with sentence starters.
    For example: The **tent** is _____ (*students fill the blank*)

6. Vocabulary maps
- Use visual organizers
- Create journals with blank vocabulary maps for learners to fill in for each new word they learn
- Include synonyms, antonyms, part of speech, root word, prefix, and suffix

7. Post test
- After teaching essential words, and your students have had many opportunities to apply them, give them a post-test identical to the pretest you gave them

- Compare each student post-test score to his/her pretest score to establish improvement
- Encourage the student to record their own scores on a bar graph to track their improvement
- This motivates them to continue learning new words

8. **Word walls**

- Post your vocabulary presentations on a word wall
- If possible, use a color printer to enhance the visuals
- Post words in the order in which they appear in the text. This makes it easier to locate them in the word wall if you choose to review them as you read the text.
- Sort words by part of speech (noun, adjective, verb etc.)

(Internet source: https://owlcation.com/academia/how-to-preteach-vocabulary-to-english-languagestudents)

Appendix 5: Guidelines on how to Facilitate Brainstorming in the Classroom

1. **Generate a Question/Topic**
    - Teacher should frame the question that needs to be brainstormed carefully so that maximum ideas may be generated.
    - Teacher should then prepare a list of sub questions that may help direct the thoughts of students in the right direction
    - Instruct students to record their ideas

2. **Encourage Discussion and Ideas**
    - There is no winning or losing team while brainstorming.
    - All the ideas and thoughts are considered and given equal preference.
    - Teacher should moderate the session so that the discussion is amiable and students are learning.
    - Ensure that everyone contributes to the session.
    - Whoever is chosen to write the ideas should be one who writes quickly and legibly.

3. **Set a time limit**
    - Set a time on the discussion.
    - Time set depends on the nature of the topic.
    - At the end of the discussion, all the ideas that were discussed should be summarized.

4. **Teacher Facilitates the Session**
    - The teacher should co-ordinate and manage the session without adding their evaluation or comments on the ideas presented. The teacher may do any of the following:
        - For simple brainstorming, write down the relevant discussion question on the blackboard or a flipchart and encourage students to add their inputs. After the discussion, the students can articulate the ideas written on the board or chart.
        - For group brainstorming, the teacher should divide the class into groups. All may be given the same topic and a paper to record their ideas, with instructions on time limit. Each group will choose a student to read out their

ideas. Members of each group record the ideas that they have missed out.

This allows for generation and understanding of all the ideas presented in the session.

- o For paired brainstorming, the students are divided into pairs and each pair discusses their ideas and notes them down.

- o For pie chart method, a circle is drawn and the topic written in the centre.

  The teacher then divides the circle into 4 or 6 parts, representing sub-topics. Students are instructed to generate ideas for each sub-topic and these are written down. At the end of the session, the diagram represents all the ideas that make up the topic.

- o For the card method, students are asked to list their ideas on a stacked card and pass it to the right. The student on the right reads the idea that was written and adds to it. This way, the card is passed around the class with each individual contributing to an idea. In case someone has no contribution, they may write a question which could be discussed by the other students. Once all the cards have been passed around, the teacher may collect them and read back the ideas to the class.

5.   Organize and write all the Ideas down.

6.   Get rid of Irrelevant Ideas
- Cull the list until only a few of the best ideas remain.
- During brainstorming, most of the ideas raised re going to be useless.
- After the brainstorming session, spend some time to discuss which ideas might actually work best (relevant ones).

(Internet Source: https://k12teachstaffdevelopment.com   posted by Professional Learning Board, PLB)

Appendix 6: Observation Schedule: Pre Teaching Vocabulary

CODE OF INSTITUTION: ……………   GROUP: ……………………………………   NO. OF STUDENTS: ………….. DATE: …………….

Nature of Teaching/Learning and Reading Comprehension	Comments/Observations
ESL teacher handling of pre-reading:	
i. *Setting objective for pre teaching vocabulary*	☐ Yes ☐ No
ii. *Timing of the pre teaching session*	☐ Yes yY ☐ No ☐ < 10 Minutes ☐ > 10 Minutes
iii. *Adherence to pre-teaching vocabulary guidelines:* o *Did teacher select key vocabulary? If yes, how many words?*	☐ Yes ☐ No ☐ < Five ☐ Five ☐ > Five
o *Did teacher pretest learners on the words? How?*	☐ Yes. ☐ No ☐ Matching words/pictures ☐ Gap-filling ☐ Others: ……..
o *How did teacher present each word?*	☐ PowerPoint ☐ Large Posters ☐ Chalkboard ☐ Others: ……….
o *Which methods were used to explicitly teach words?*	☐ Sentence with word in context ☐ Repeating word after teacher ☐ Connecting word to topic ☐ Word study ☐ Others: ……………….
o *Did learners practice the words? E.g. developing vocabulary maps, word walls etc.*	☐ Yes ☐ No ☐ creating word maps ☐ Sentence starters ☐ Others: ……………………..

	o *Did teacher posttest learners on the words to determine improvement?*	☐ Yes ☐ No ☐ Asked learners to compare pre- and post-tests scores ☐ Students recorded scores ☐ Learners asked to keep learning new words ☐ Others
	o *Which resources did the teacher use in this class?*	☐ Dictionaries ☐ Rochets Thesaurus ☐ Textbooks ☐ Internet ☐ Pictures/photographs ☐ Learners ☐ Other teachers ☐ None of the above ☐ Others: ……………………………………..
	o *Vocabulary maps*	☐ Use of visual organizers ☐ Creating journals ☐ Synonyms ☐ Antonyms ☐ Roots ☐ Prefixes ☐ Suffixes ☐ Others: ……….
	o *Was the selection and pre-teaching of words focused on enhancing learners' comprehension of the passage?*	☐ Yes ☐ No Explanation:
iv.	**Development of the three-phase framework in the lesson**	☐ Yes ☐ No Explanation:
v.	**Evaluation of the pre teaching vocabulary session**	☐ Yes ☐ No Explanation:

Aspects of individual learner differences and differentiated instruction:	
i. *Which kinds of **learning styles** are evident in the ESL reading classroom?*	☐ Visual ☐ Auditory ☐ Kinesthetic ☐ Tactile ☐ Analytic ☐ Social ☐ Solitary ☐ A combination/mixture ☐ Others: ………..
ii. *Which **teaching styles** are evident in the ESL reading classroom?*	☐ Learner-centred ☐ Teacher-centred ☐ Interactive ☐ Others:
iii. *What aspects of **differentiated instruction** are observed?*	☐ Differentiating lists of words for learners ☐ Differentiated techniques ☐ Differentiated group activities ☐ Individualized teaching ☐ Others:
iv. *What is the learners' apparent level of **motivation**? Whether low or high, state the possible causes:*	☐ Autonomy-supporting instruction ☐ Co-operative learning in small groups ☐ Interesting tasks ☐ Variations in teaching strategies ☐ Other possible causes: …………
v. *Is there a noticeable influence of **gender** and/or type of school on pre-reading activities? If yes, comment.*	☐ Yes ☐ No Comment:

Any other useful comments about the lesson:

OBSERVATION SCHEDULE FOR BRAINSTORMING SESSION

CODE OF INSTITUTION: ……….… GROUP: ……………………………………… NO. OF STUDENTS: ………….. DATE: …………….

Nature of Teaching/Learning and Reading Comprehension	Comments/Observations
ESL teacher handling of pre-reading:	
i. Setting objective for the brainstorming session	☐ Yes ☐ No
ii. Timing of the brainstorming session	☐ Yes ☐ No ☐ < 10 Minutes ☐ > 10 Minutes
iii. Adherence to brainstorming guidelines: a) Comment on nature of questions/topics generated by the teacher?	☐ How many? …… ☐ capable of generating enough ideas ☐ A list of sub-questions to direct learner provided ☐ Learners instructed to record ideas (Tick in boxes as appropriate)
b) How did the teacher encourage discussions?	☐ No winners or losers ☐ All ideas given equal preference ☐ Teacher moderated the session ☐ Everyone in group contributed ☐ A member in each group chosen to record ideas ☐ Any other: …………………………… (tick as appropriate)
c) Did teacher set a time limit? If yes, how long?	☐ Yes ☐ No Duration: ……………………..

d)	*How did teacher facilitate the session?*	☐ Simple brainstorming questions on chalkboard/flipchart ☐ Divided the class into groups ☐ Put the students in pairs ☐ Asked students to write ideas on a card and pass it on their peers ☐ Pie chart method
e)	*Did learners organize and write down all their ideas?* *If not, why?*	☐ Yes ☐ No Comment:
f)	*How were irrelevant ideas discarded?*	☐ Culled the list to retain only the best ideas ☐ Left out irrelevant points during brainstorming ☐ Spent some time after brainstorming to choose the best ideas
g)	*Which resources did the teacher use in this class?*	☐ Dictionaries ☐ Textbooks ☐ Internet ☐ Other teachers ☐ Learners themselves ☐ None of the above ☐ Others: ………….
h)	*Were the discussions tailored towards influencing prior knowledge of the topic? If yes, comment on relationship between the brainstorming questions and the passage to be read.*	☐ Yes ☐ No Comment:
iv.	**Development of the three-phase framework in the lesson**	☐ Yes ☐ No Explanation:
v.	**Evaluation of the brainstorming session**	☐ Yes ☐ No Explanation:

|	Aspects of individual learner differences and differentiated instruction:	
*i. Which kinds of **learning styles** are evident in the ESL reading classroom?*	☐ Visual ☐ Auditory ☐ Kinesthetic ☐ Analytic ☐ Tactile ☐ Analytic ☐ Social ☐ Solitary ☐ A combination/mixture ☐ Others: …………………	
*ii. Which **teaching styles** are evident in the ESL reading classroom?*	☐ Teacher-centred ☐ Learner-centred ☐ Interactiv ☐ Others:	
*iii. What aspects of **differentiated instruction** are observed?*	☐ Differentiating questions for learners ☐ Diffentiated techniques ☐ Differentiated group activities ☐ Individualized teaching ☐ Others	
*iv. What is the learners' apparent level of **motivation**? Whether low or high, state the possible causes:*	☐ Autonomy-supporting instruction ☐ Co-operative learning in small groups ☐ Interesting tasks ☐ Variations in teaching strategies ☐ Other possible causes: …………	
*v. Is there a noticeable influence of **gender** and/or type of school on pre-reading activities? If yes, comment.*	☐ Yes ☐ No Comment:	

Any other useful comment on the lesson:

OBSERVATION SCHEDULE FOR THE CONTROL GROUP

CODE OF INSTITUTION: ……………   GROUP: ………………………………………
NO. OF STUDENTS: ………….. DATE: …………….

Any useful comment on the lesson:

Appendix 7: Map of Kakamega Central Sub County
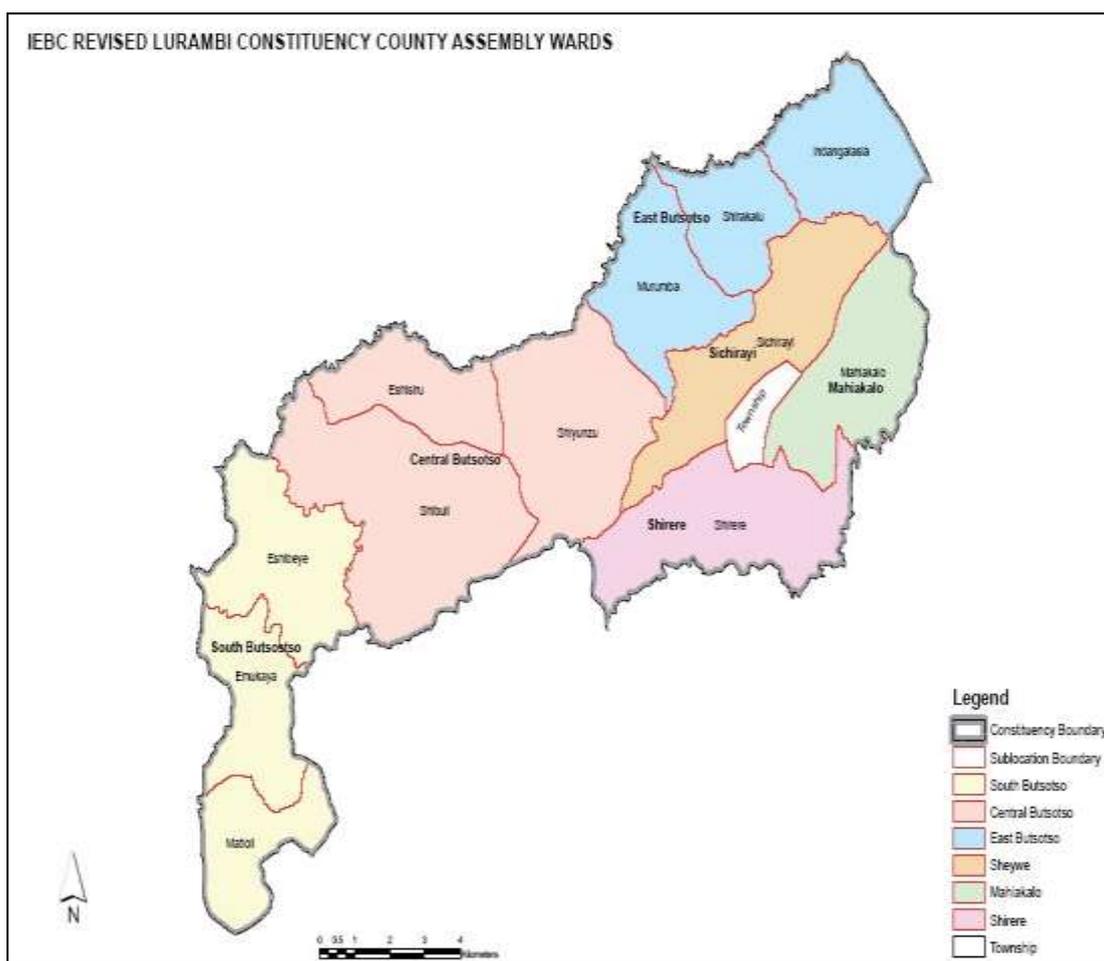
Appendix 8: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 750270

Date of Issue: 02/December/2020

RESEARCH LICENSE

This is to Certify that Mr.. Solomon Manjinji Mutaliani of Moi University, has been licensed to conduct research in Kakamega on the topic: EFFECT OF PRE-READING ACTIVITIES ON LEARNERS' PERFORMANCE OF READING COMPREHENSION IN SELECTED SECONDARY SCHOOLS IN KENYA. for the period ending : 02/December/2021.

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SCIENCE, TECHNOLOGY &
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Appendix 9: Research Letter from Dean, Moi University

MOI UNIVERSITY
Office of the Dean School of Education

Tel: (053) 43001-8   P.O. Box 3900
          (053) 43555   Eldoret, Kenya
Fax: (053) 43555

REF: EDU/D.PHIL.CM/1008/16   **DATE:** 11th November, 2020

The Executive Secretary
National Council for Science and Technology
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: **RESEARCH PERMIT IN RESPECT OF MUTALIANI
              SOLOMON MANJINJI – (EDU/DPHIL.CM/1008/16)**

The above named is a 2nd year Postgraduate Higher Degree (PhD) student at Moi University, School of Education, Department of Curriculum, Instruction and Educational Media.

It is a requirement of his PhD Studies that he conducts research and produces a dissertation. His research is entitled:

"Effect of Pre-Reading Activities on Learners' Performance of Reading Comprehension in Selected Secondary Schools in Kenya."

Any assistance given to enable him conduct research successfully will be highly appreciated.

Yours faithfully,

11.11.2020

PROF. J. K. CHANG'ACH
DEAN, SCHOOL OF EDUCATION

(ISO 9001 – 2015 Certified Institution)