

UNIVERSITY OF GHANA, LEGON

**MISSPELLINGS ON SIGNAGE: ARE LEARNERS OF THE ENGLISH LANGUAGE IN
THE NEW JUABEN MUNICIPALITY OF THE EASTERN REGION OF GHANA
SAFE?**



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SAFE?**

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**A THESIS IN THE DEPARTMENT OF ENGLISH, FACULTY OF MODERN
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UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE MASTER OF PHILOSOPHY
(ENGLISH LANGUAGE) DEGREE**

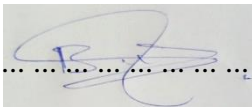


SEPTEMBER, 2020

DECLARATION

Student's Declaration

I, **Bertha Duah** hereby declare that this thesis with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, the entire thesis is my own original work, and it has not been submitted, either in part or in whole, for another degree elsewhere.

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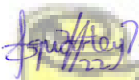
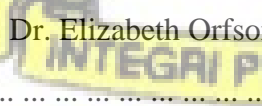
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I, hereby declare that the preparation and presentation of this thesis was supervised in accordance with the guidelines on supervision of thesis as laid down by the University of Ghana, Legon.

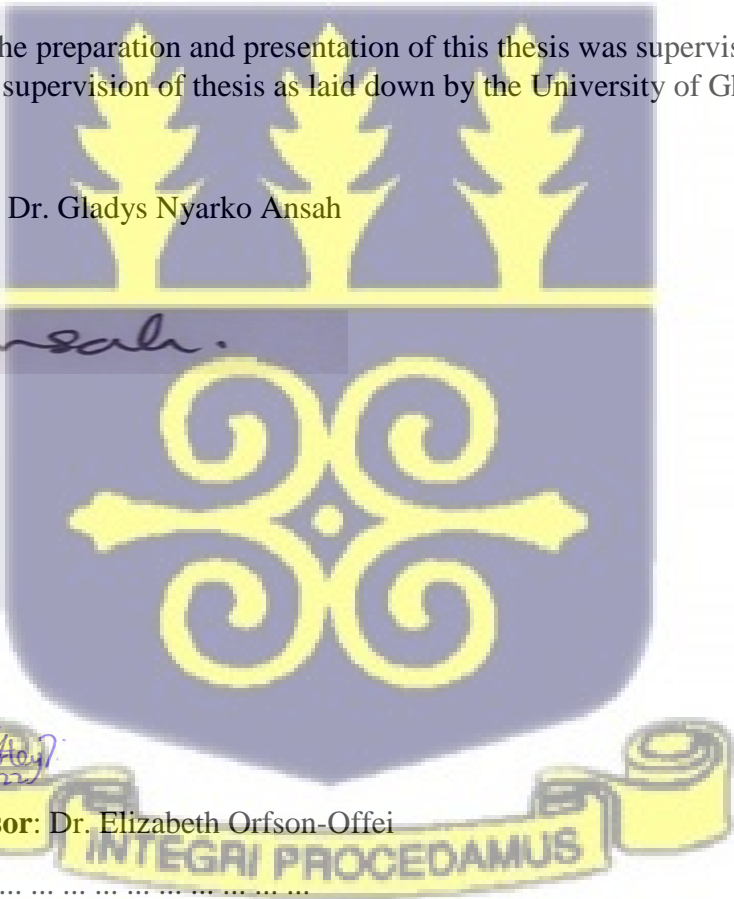
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Date: 14/01/2022.. ..



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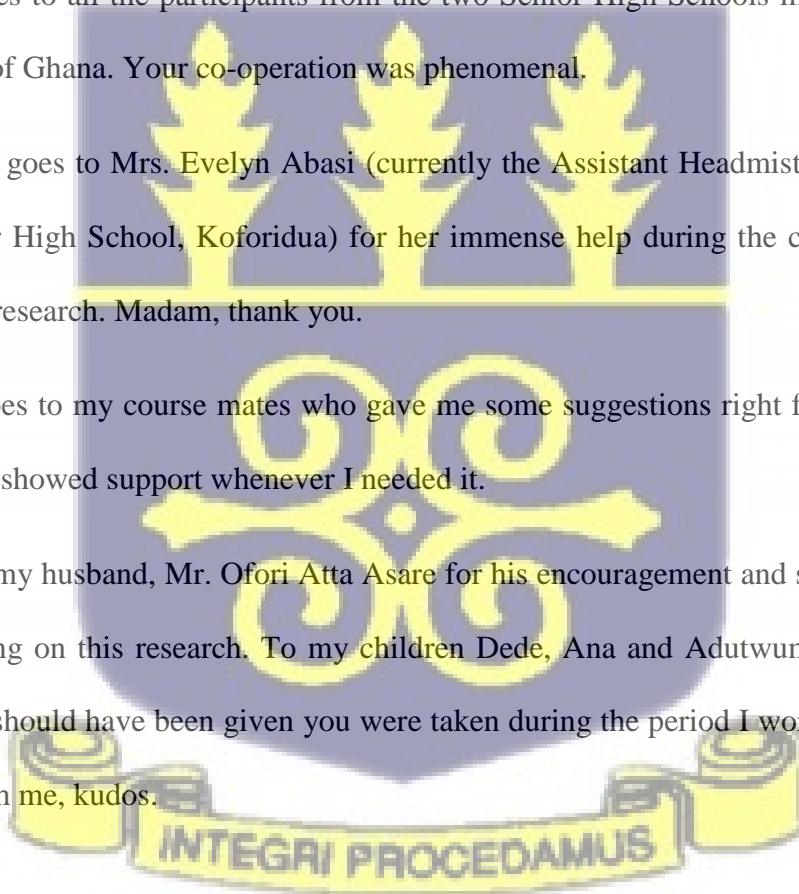
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DEDICATION

I dedicate this thesis to my daughter, Eunice Adutwumwaa Asare.



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ABSTRACT

The purpose of the study was to carry out an experiment to determine whether or not misspellings (in the English language) on signage (the Linguistic Landscape) has a potential effect on the spelling competence of Senior High School learners of the English Language in the New Juaben Municipality in the Eastern Region of Ghana. A quasi-experimental research design was adopted for the study. Fifty (50) learners out of a population of eighty-nine (89) learners from two Senior High Schools in the New Juaben Municipality were purposively selected for the study. The researcher selected some words which had been misspelt on selected signage in the Municipality and gave the learners spelling dictation on those words. The researcher then displayed the pictures of the selected signage with misspellings on them in the classrooms of the selected schools for a month. At the end of the period the researcher went back to the schools to take a second spelling dictation of the same words that were used in the first dictation. After this exercise, students' attention was drawn to those words which had been misspelt on the signage and they were taught the correct spellings of those words. The results of the data collected from students' (that is results on the dictation and questionnaire) were analyzed in both percentage and pie chart forms.

The analysis of the results revealed that majority of learners read inscriptions on signage but the spelling competence of a minority of them were affected by spellings on signage however the minority's (and by extension most learners') spelling competence could be improved if their linguistic landscape was used as one of the tools in teaching spelling in class. The study recommended that educators prompt students to be conscious of their linguistic landscape, with the former guiding the latter in critiquing and appreciating signage in their linguistic landscape.

It was also recommended that Metropolitan authorities in the various Regions in Ghana could institute measures that will censor signage before they are put up in the public space.



CHAPTER ONE INTRODUCTION

1.1 Background to the Study

Inscriptions on kiosks, posters and signboards are basically meant to give information to people (readers), but how unfortunate if those written information on signboards, kiosks and posters are misspelt. This is because those misspellings would defeat the purpose of those signage. What about learners (of the target language which has been used on the signage) who come across these signage with misspellings on them? Do those learners read those misspelt words on inscriptions and internalize them as correct spellings and hence use it in their writings?

According to Ethnologue (twenty-first edition) there are about eighty-one (81) living languages in Ghana. Seventy-three (73) of these are indigenous languages while eight (8) are not indigenous. In this multilingual environment, it is no wonder that at independence, due to the critical and pragmatic role that language plays in Nationism, (governance and education) English Language was chosen as the official language (Fishman, 1968 as cited in Fasold, 1984). Of course, the important role that English Language played in the colonial era (in Ghana) certainly did contribute to the decision of making English language the official language (Adika, 2012). As the language of education, currently from kindergarten to class three learners may be taught in the government approved dominant language of the area while the English language is taught as a subject; but from class four to the tertiary level, English language is the language of instruction (Adika, 2012). Thus, the English Language (as an official language of Ghana) is the language of education, governance and our *lingua franca* in Ghana.

Due to this important role of English Language, most of the inscriptions on kiosks, posters and signboards (which constitute our linguistic landscape) are written in English. The researcher

had observed that misspellings of English language inscriptions on kiosks, posters and signboards were quite prevalent in the New Juaben Municipality as was the case in Jimme Town. Legese (2016) in his article on The Error Analysis in Billboards Advertisements in Afan Imoro in Jimme Town pointed out that teaching a language alone cannot develop a language but there should be a consistent follow up of how people are using the language.

Krashen (1985) and Krashen (1989) posited that linguistic landscape provides learners of a second language with the input with which to learn the language and one relevant way through which learners of a second language (L2) obtain input from their linguistic landscape to help them learn a target language is through reading texts that they come across. In the Ghanaian context, where English language is our second and official language, (and hence the language of inscriptions on signage) to what extent will Krashen (1985) and Krashen (1989) concept hold? Are signage in Ghana a possible source of incidental learning (Cenoz & Gorter, 2008) for learners of the English language?

One of the ways in which a language is used is how it has been represented as inscriptions on signage in the public space. Are learners then likely to see and read these inscriptions with spellings errors (in English language) in the public space? Cenoz and Gorter (2008) seem to be giving a 'yes' to this question in their article titled, The Linguistic Landscape as an Additional Source of Input in Second Language Acquisition. They admit that though there are differences regarding attention that people give to these signs, the fact that billboards in those days (2008) in Timesquare costs \$2.5million and there were 250 signs as compared to only 35 in 1980 (Schaps, 2007) showed that somehow, the advertising companies knew that people paid attention to these signage and there is no doubt that learners of the English language would be among the populace. Educators like Barrs (2017) and researchers like Sayer (2010) writing on linguistic

landscape in EFL classrooms pointed out that though there was not much of English language in the linguistic landscape in such countries, learners there were still able to learn the English language using their linguistic landscape. Flowing from that it will be essential to test the concept of our linguistic landscape being a possible source of input for learners' spellings of English language words.

One fact which should not be lost on us is that some English language spellings are not that simple and this may probably be due to the fact that English language, throughout its history has had a lot of influences from other languages. Thus, from the influence of Germanic dialects and Scandinavian languages (in the old English period) to French language and finally to the modern English period where in spite of the attempt of standardization (due to the invention of the printing machine) the language still experienced some Dutch influence; no wonder it has a deep orthography (Fennell, 2001). Due to the inconsistencies in its grapheme-phoneme relationship, learners of the language do not have an easy task when it comes to spelling (Russak & Kahn-Horwitch, 2013). A number of studies such as the ones done by Alhaison, Al-Zuoud and Gaudel (2015) as well as Kusuran (2016) listed factors such as the differences in the orthographic systems of learners' first language and English Language as a cause of spelling errors made by learners of English as a second language.

No wonder misspellings were listed as one of the causes of failure in the English language paper 2 of the West African Senior School Certificate Examination, 2018, (West African Examination Council, 2019). The Chief Examiners' Report for WASSCE 2018 (WAEC, 2019) for English language enumerated poor spellings as one of the weakness of a number of candidates that year. This according to the report in no mean way, worked against the performance of students in the Core English Language paper 2 since marks were deducted for wrong spellings in the

comprehension and summary sections. Likewise, in the Essay writing, wrong spellings were circled and half a mark deducted as an error in Mechanical Accuracy. This translated to mean that a student with poor spelling skills was likely not to excel in the core English language paper 2 and invariably that subject as a whole. The rippling effects of that may extend to other subjects too since English is a tool subject in our educational system in Ghana (Adika, 2012). Stating the suggested remedies for students' poor spelling skills, the Chief Examiners asked that candidates be taken through spelling drills and encouraged to read widely on different subjects to enrich their stock of vocabulary. This suggestion (to the researcher) necessitates an examination of possible sources where students may read from and its effects on students' spellings. Taking up the second suggested remedy of reading widely, students' linguistic landscape filled with inscriptions in the English Language are one of the places students may look to read apart from their books. Would learners in seeking to read find a linguistic landscape that would promote their spelling competence? It should be noted that the observation of poor spelling with its suggested remedies have been a feature in the previous years' WAEC Chief Examiner's Report and hence not limited to 2018 only.

It is based on this background that this research sought to test the concept of linguistic landscape as a possible source of input Krashen (1985) and Krashen (1989) on the spelling competence of some learners (in the Senior High School) in the New Juaben Municipality.

1.2 Statement of the Problem

Currently in most municipalities, towns and cities in Ghana the public space is symbolically constructed with various signs mainly written in English and in some cases Asante Twi in areas where Asante Twi is mostly spoken such as the Kumasi metropolis (Tuffour & Asamoah-Poku, 2020). English's dominance in our linguistic landscape is due to its role as the official and

language of education. As the language of education, learners of the English in Ghana do have their own challenges in the language and spelling is one such major challenge. Learners therefore need all the help they can get in and outside the classroom. In the face of this phenomenon, there are a lot of infractions of the English language on our signage and prominent among them are misspellings. It is interesting to note that a lot of these misspellings appear on shops in localities where learners reside or may pass by. It appears the phenomenon of misspellings in our linguistic landscape (against the backdrop of our international examining body's report that misspellings contributed to students' failure), could be a possible source of input for the spelling competence of learners of the English language in the Senior High School in the New Juaben Municipality. Hence the interest of the researcher in carrying an experiment to determine whether or not learners' linguistic landscape has a potential influence on their spelling competence.

1.3 Purpose of the Study

The purpose of the study was to carry out an experiment to determine whether or not misspellings in the Linguistic Landscape of New Juaben Municipality has a potential effect on the spelling competence of Senior High School learners of the English language in that Municipality.

1.4 Objectives of the Study

The study was guided by the following objectives which set out to:

1. Find out whether learners read inscriptions on signage in their linguistic landscape.
2. Ascertain whether or not misspellings in learners' linguistic landscape has a potential effect on their spelling competence in the English language.

3. Explore the possibility of using learners' linguistic landscape as a literacy tool in teaching English spellings.

1.5 Research Questions

The Research sought to answer the following questions:

1. Do learners read inscriptions on signage in their linguistic landscape?
2. Do misspellings in learners' linguistic landscape have a potential effect on the spelling competence of learners of the English language?
3. Can linguistic landscape (in Ghana) be used as a literacy tool to teach English language spelling?

1.6 Significance of the Study

The findings of this study would reveal whether learners in Ghana do read inscriptions they come across in their linguistic landscape. The establishment of this inquiry would then prompt the Metropolitan Authorities in the various regions of the country (who are in-charge of giving permits before these signage are put up in the public place) to ensure that the English language inscriptions on these signs are correctly spelt. This step may call for the setting up of a body to proof read signage before they are set up in the public space.

It is hoped that from the results of this research educators may find a way of using the linguistic landscape of learners as a tool in teaching not only English language spellings but structure, meaning (semantics) as well as literary devices. This certainly would make the English language lessons in our various schools more student-centred, practical and interesting.

It is envisaged that this study would add significant information to the already existing studies done on linguistic landscape and the learning of English language as a second language.

The results of this research could also be a source of reference for other researchers who are interested in this area of study to build on it from whatever dimension they would like to work on.

1.7 Delimitation of the Study

This research used two Senior High Schools (a class each from each school) in the New Juaben Municipality. The study was further delimited to looking at only learners' linguistic landscape and its relationship to their spelling competence.

1.8. Operational Definition of Terms (Key Words)

Linguistic Landscape: It refers to the language of public road signs, street names, commercial shop signs, advertising billboards, place names and public signs in government buildings in a given territory, urban agglomeration or region (Landry & Bourhis, 1997). Linguistic landscape presents a scene where the public space is symbolically constructed (Shohamy & Gorter, 2008).

Signage: It is language in its written form in the public sphere (Gorter, 2006).

First language / L1: A child's native or first language acquired (Mizza, 2014).

Second language / L2: The process by which a person learns a new language other than their first language (Elis, 1997, P.3).

Spelling: Spelling is a code that uses letter sequences to represent specific words that have an associated pronunciation and meaning within the mental dictionary (Berninger & Fayol, 2008).

Spelling errors: When a learner consistently misspells a word because they do not know what is correct (Ellis, 1997, P.17).

ESL: English as a second language.

EFL: English as a foreign language.

Incidental learning: Learning without necessarily planning to do so. It can also be as a result of learning one thing and in the process, learning something in addition (Ellis 2007).

1.9 Organisation of the rest of the Study

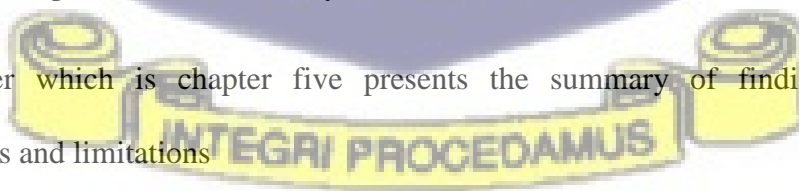
The research is ordered and presented in five chapters. Chapter one focuses on the introduction which covers the background to the study, statement of the problem, purpose of the study, objectives of the study, delimitations, operational definition of terms and organisation of the rest of the study.

Chapter two presents the literature reviewed as well as the conceptual theory used for the study.

Chapter three is on the research methodology and the procedures that were used to bring together data for the study. This covers the research design, population, and sample size, sampling technique, instrumentation, validity and reliability of the instruments, procedure for data collection, data analysis and ethical considerations.

Chapter four has the presentation and analysis of data as well as the discussion of findings.

The last chapter which is chapter five presents the summary of findings, conclusions, recommendations and limitations



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter deals with the literature review and the conceptual theory for this research. The literature reviewed first covered the key themes raised in consistent with the research questions. It would then be followed by the conceptual theory.

The themes on which the literature was reviewed were as follows:

- Attention paid to signage as a source of information.
- The potential effect of misspellings on signage on learners' spelling competence.
- Signage as a literacy tool in improving learners' spelling competence.

2.1 Attention paid to signage as a source of information

In reviewing literature on this paper, the researcher does agree with Barni et al (2014) on their online article on the Linguistic Landscape Theory in Language Learning. Barni et al (2014) observed that any city's linguistic identity could be determined through their linguistic landscape. This invariably means that a city's official language or their language policy is exhibited through their linguistic landscape. This notion was emphasised by Shohamy (2010) and Kasanga (2012) who observed that the language(s) used in public signage, give evidence of what language is locally relevant (or as in the case of some Arabic countries, is becoming locally relevant). In the case of Ghana, this study of Shohamy et al (2010) and Kasanga (2012) translate

to mean that the language used on our public signage (which is the English language) indicates the language which is nationally recognised as our official language and thus is locally relevant. Hence apart from the classroom where learners learn the English language our linguistic landscape displays the English language in any given locality. These two articles were mainly concerned about describing a city's linguistic identity through their linguistic landscape but this research sought to find out the influence of our linguistic landscape (in Ghana) on learners' spelling competence in the English language.

Cenoz and Gorter (2008) in their article titled *The Linguistic Landscape as an Additional Source of Input in Second Language Acquisition* admitted that though there were differences regarding attention that the general public (which includes learners) give to signage, the fact that billboards in those days (2008) in Timesquare costs \$2.5million and there were 250 signs as compared to only 35 in 1980 (Schaps, 2007), showed that somehow, the advertising companies knew that people paid attention to these signage and there is no doubt that learners of the English language would be among the populace did so. Cenoz and Gorter's (2008) concentration was on how linguistic landscape in any given territory could help learners of any officially accepted second language (in a country) in equipping themselves with the structure of the language while this research was mainly concerned with experiment on how the spelling competence of learners of the English language may be affected by the misspellings in their linguistic landscape.

Advertising companies are aware of the power of the linguistic landscape to draw people's attention to it and the effect any errors on signage can have on companies that advertise using such signage with errors on them. No wonder a write up online by ReelEZ Display Inc. (2020) on *Common Retail Signage*, advocated that businesses allow companies like theirs to proof read their signage to correct grammatical errors and misspellings since such errors could turn one's

business into a joke. Certainly this paper was to help raise the awareness of companies and the society in general on the necessity of having an effective body to proof read signage before they are set up for public consumption and to raise effective advertisement for businesses but the point of departure of this research work from the article is that this work mainly sought to investigate whether or not misspelled inscriptions on signage could militate against learners' spellings of the English language as our language of education.

The phenomenon of misspellings on signage draws quite an attention to itself so much so that the BBC did a feature on it and the data collected came from the UK and the US who are native speakers of the English language. The online BBC feature was titled 'Rihgt' road signs: Your pictures of badly spelt road signs' and had reporters from the UK and the US (on 29th October, 2014) who showed a lot of misspellings on signage along some highways. One of the reports from a reporter Deanna Judo, indicated that signs directing motorists to Canterbury in Kent (in England) were no help because of misspelling on these signs. This article's concern was with how misspelling worked against giving correct road directions, but this paper's concern was to see whether those misspellings work against the correct spellings of learners of the English language as a second language.

In an article by Tanya Sinkouits (2016) on 'Multiple Street Signs Spelt Louisiana Avenue wrong' she observed a lot of misspellings on signage in New Orleans but was particular about the one on "Louisiana Avenue" which was spelt wrongly on most of these signs. After asking around she was informed that they were put up by the United States Army Corps of Engineers as part of the drainage projects along Prytania. Certainly, the United States Army Corps of Engineers were aware of the potential of these signage in drawing the attention of motorists and pedestrians along Louisiana Avenue that was why it was put in the public space. This article

buttressed on how essential was it to have a body in charge of proof reading these signage before they are put up in public space at least for the sake of learners who might be reading those signs along the way. Whereas this article's concentration was on the embarrassment that these signs (even in the city of the native speakers of the English Language) generated for a credible body such as the United States Army Corps of Engineers, this research concentrated on the how misspellings on signage in Ghana could work against the spelling competence of learners of the English Language as a second language.

2.2 The effect of misspellings (of the English language) on signage on learners' spelling competence in the English language.

The seriousness attached to having correctly written signage in any given community to promote the proper usage of the language by learners was exemplified in an article by Davida Moya (2017) on a school principal who lost his position over some misspelt words (in English) on a school sign. Antoinette Young, the principal of public-school number twenty was demoted to vice principal in another school after the school put up a sign which spelt "December" and "report" wrongly as "Dicember" and "repor". This indicated the seriousness most concerned parents, educators and educational policy makers do attach to signage when learners are involved (in places like Canada where this incident happened). While David Moya's report concentrated on properly editing educational signage in various educational institutions before it was put up so learners have a proper linguistic landscape, this research looked at misspellings on signage and whether they could have possible effect on learners' proper spelling of the English language.

Harry Victor Masters, (1928) dwelled mainly on misspellings made by eighth graders, high school seniors and college seniors but not on signage. Some commonly misspelt words run through from the eighth graders, high school seniors and college seniors. Though the percentage of the accuracy of spelling errors increased with each higher grade, it was disturbing that even

for college seniors some errors in spelling of some particular words such as ‘pneumonia’ and ‘accommodate’ were persistently spelt as ‘numonia’ and ‘accomodate’ respectively. This study brings to the fore that learners need all the help they can get in and out of the classroom environment to help them work on their spellings and thus misspellings on signs are certainly not what learners need. Unlike Master’s (1928) study that concentrated on analysing the spelling errors of learners of the English language, this research looked at the connection between learners’ spelling competence vis-a-vis the input in their linguistic landscape which had misspellings.

Bodomo, (1999) talking about the multilingual situation in Ghana which necessitated the use of English Language as the official language posited that most Ghanaians happen to speak some form of the English Language though most of the usage of the language is wrong. It is with this wrong usage that most transfer unto writing and writing on signage. It is therefore no wonder that some signage (especially on shops) have one form of error or the other in spelling. As learners of the English Language who already may have some difficulties in spelling as seen in Masters, (1928) would we be compounding our problems if our linguistic landscape also exhibits such errors? Our learners in our classroom would certainly be taught how to write correct spelling of words but could this work put in by teachers be annulled by the influence of signage (with misspelling) outside the classroom? Bodomo, (1999) sought to trace the history on why English Language was chosen as the country’s L2 and hence the language of education from the upper primary through to the tertiary and its associated educational challenges but this research looked at how the English Language was used in the public space and the impact it may have on the English language spellings of learners.

2.3 Signage as a literacy tool in improving students’ spelling competence

Though a lot of work done on Linguistic landscape has been in fields such as sociolinguistics, linguistic anthropology and sociology as very important fields that studies linguistic landscape, some scholars have also done some work on the linguistic landscape in the field of education. In fact, according to Dagenais et al., (2009) most of the foundational work done on the study of linguistic landscape used the youth for research and they were the focus. He cited Gorter and Cenoz's (2006) research in psycholinguistics which was conducted on adolescents, to find out about what they think about signage around them. One should not lose sight of the fact that Landry and Bourhis (1997) to whom the term linguistic landscape was first attributed to, carried out their research on linguistic landscape where they set out to find out readers' responses to the print they came into contact with. Dagenais et al, (2009) set out document the responses of elementary school pupils to their linguistic landscape as represented in print with a disposable camera. Dagenais et al (2009) study deduced that linguistic landscape could be a tool in teaching literacy practices from a critical point of view as well as make learners aware of the existence of various languages. Learners are also enabled to understand the socio-political environment in which they live. Though this research was interested in the development of literacy skills through making learners critically examine their linguistic landscape the differences between Dagenais et al (2009) and this current study are: (i) The learners in this research were not be allowed to examine their linguistic landscape to collect data but the learners were presented with samples of signage in (photographs) with misspellings on them to interact with for a given time. (ii) The researcher looked out for any relationship between learners' spelling (post-test) and the misspellings on the signage they were exposed to.

The question is, why the drawing of a connection between a literacy skill such as spelling and signage? Even before now, some scholars had discussed how our linguistic landscape could be

used as a literacy tool in teaching learners of any given language which is or becoming relevant in a given territory. Some of these scholars discussed the possibility of learners learning any given language from their linguistic landscape either consciously or unconsciously. In fact, Cenoz and Gorter (2008) discussed the connection between language learning and linguistic landscape and how the latter can improve on learner's pedagogy. From their discussions, they brought out five possible avenues of learning language from the linguistic landscape and incidental learning was listed as one of the avenues. Here they meant that learners of a target language may unconsciously learn the target language from their linguistic environment. Their view serves as a part of the background on which this research sought to carry out an experiment to determine if the spellings of learners of the English language may unconsciously be affected by misspellings in their linguistic landscape. But then the practicality of this concept was not explored in their discussion as this research aimed to do. Then also much of the focus of language learning from the linguistic environment was on sociolinguistics (pragmatics of the language) rather than on appropriate spelling in the linguistic landscape.

Sayer, (2010) drew on the notion that the linguistic landscape could be an additional source of input for second language acquisition (Cenoz and Gorter 2008) and suggested that teachers of a second language should find a way to connect the linguistic landscape of students to the language lessons in the classroom. This he opined would make language lessons come alive practically. Here, learners' linguistic landscape could act as a check on their language use. Though Sayer (2010) was looking at language use in the linguistic environment as an EFL teacher, his discussion could apply in an ESL classroom. Unlike the environment in which Sayer (2010) suggested that the linguistic landscape of students in EFL classroom could be a pedagogical tool in language learning, teachers in ESL classroom would have a lot of

opportunities for practice if they were to adopt this method of language teaching since most of the inscriptions on signage are in the English language. This research allowed learners to interact with some of the inscriptions (in the English language) from their linguistic landscape to determine whether learners accept inscriptions on signage around without critiquing them or not. Sayer's (2010) scholarly discussion did not have practical demonstration of how learners transferred the analysis of their linguistic landscape into their language learning (whether in pragmatics, grammar or spelling).

Thornbury (2012) explained the immense benefits learners may accrue if they are allowed to use their immediate linguistic landscape as pedagogy. This, according to Thornbury (2012) will help learners to know why certain signage have English language as well Spanish language and which group of readerships that the signage are meant for. Such analysis of learners' linguistic landscape would certainly promote learners' pragmatic competence, multimodal literary skills as well as help them to better understand the symbolic and emotional power of language as discussed by Cenoz and Gorter (2008). Here, Thornbury's (2012) discussion was not focussed on spellings on the signage in learners' immediate linguistic landscape and whether it has any effect on learners' spelling competence unlike this research. Then also, his discussion did not factor in how the pedagogical process was to be carried out by learners while this research carried out a practical pedagogical process to arrive at its results.

Dressler (2015) carried out an examination of how signage around a school promotes bilingualism. For this particular study it was carried out in a Canadian bilingual elementary school which was carrying out a German bilingual programme. Thus, they set out to develop a German-English bilingualism. His study brought to the fore that the signage around the school were not enough to promote the German-English bilingualism due to some practices of sign

makers and teachers concerning how the signs were put up in the school's public space. This article prompts one to have a look at some societal practices of how signage are even put up in the public space. This examination by Dressler (2015) pointed out clearly that absence of a people's target language (in a given territory) on their linguistic landscape affect may make learners of that target language feel marginalised due to the unavailability of opportunities for practise of the target language outside the classroom setting. Dressler (2015) established the understanding that learners consciously or unconsciously do take notice of these signage especially as with time, most of them are made to appear colourful and attractive. Areas where Dressler's (2015) work deviated from mine are: (i) what we were looking out for on the signage. This research was looking out for misspellings of the English language on signage and not societal practices that are exposed by the signage around. (ii) The areas where the signage are. That is this research did **not** strictly look at signage around schools like Dressler (2015) but signage with misspellings on them in the towns where the schools used in this experiment were situated. (iii) Those who put up the signage. That is, unlike Dressler's (2015) work where teachers together with sign writers put up the signage, the signage in this research were worked on by sign writers as it pertains in Ghana. Hence this work is mainly concerned about misspellings on signage and whether it has any effects on learners of the English language.

Malinowski (2015) on how to use learners' linguistic landscape as a literacy tool in an EFL classroom observed that most language learners try to make meaning of their linguistic landscape. Thus, if students were tasked to observe, take photos and enumerate situations of interest on signage in their linguistic landscape they tend to make meaning (and hence learn a lot of vocabulary) in the target language. Whatever is learnt in this situation sticks with learners as they can physically see, read hear what they are tasked to learn in their surroundings. Here

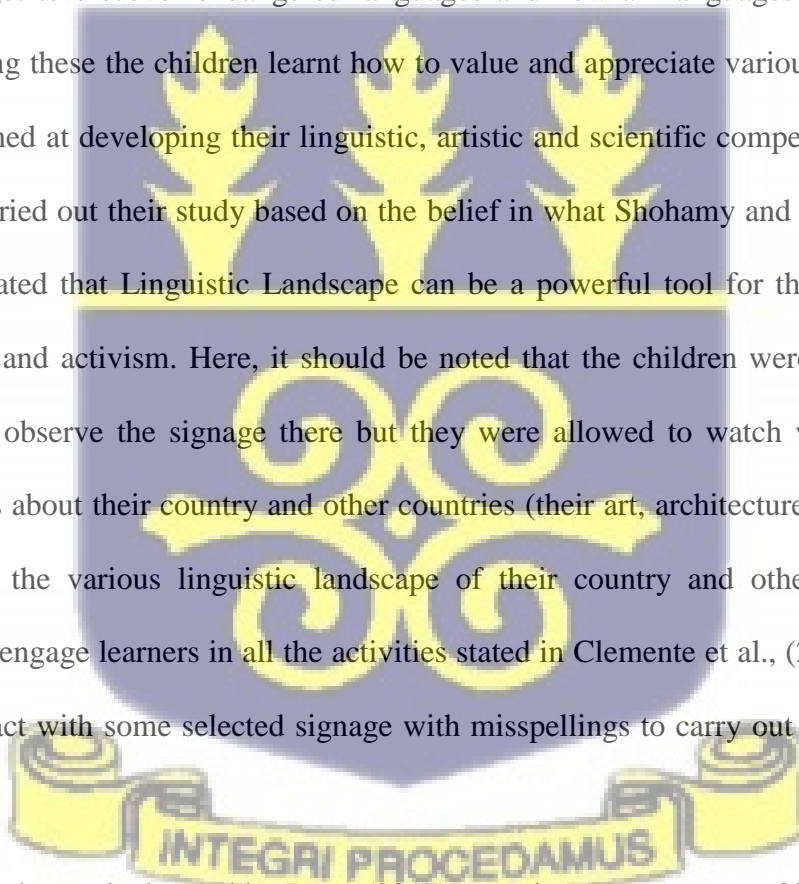
Malinowski (2015) included what was heard in the target language as part of the linguistic landscape of learners. This research, unlike Malinowski's (2015) study which sought to allow learners in an EFL classroom to make meaning of signage (in the English language) in their linguistic landscape, looked at misspellings on signage (in Ghana) and any possible effects of it (if any) on learners of the English language.

Huebner (2016) reiterates the critical role of linguistic landscape as a pedagogical resource. It was established in his study that learners through observation of their linguistic landscape, could learn a lot of literary devices such as similes, metaphors and rhetorical questions. Linguistically, students also learn about lexical borrowing, phonological adaptation and syntactic patterning of the target language. On a more general level, he talked on how learners could use signage as research on the language policies of a given area and what informs the language policy in question. A point of divergence of Huebner's (2016) study from this research is that (with this research) there was a look solely at misspellings on signage and if there exist any relationship between it and learners spelling in the English Language and not on how signage aids learners in learning either the linguistics, literary device of their target language or how the linguistic environment indicates the language policy of a given area.

Flowing from what had been stated earlier on using linguistic landscape as a pedagogical tool, Shohamy and Gorter, (2015) posited that allowing learners to study and document the linguistic landscape of their neighbourhood creates an awareness of the language policy of the area in learners as well as perk up their activism. This research unlike Shohamy and Gorter's (2015) suggestion of using the linguistic landscape to create an awareness of a given area's language policy in learners, rather seeks to determine whether or not learners' spellings competence in the

English Language in Ghana has a correlation to misspellings on signage (in English language) in learners' linguistic landscape.

Clemente et al., (2012) carried out a research using an elementary school in Portuguese. Here the learners were aged around six years. The research dubbed: "Learning to read the world, learning to look at the linguistic landscape: A study in the first years of formal Education", was carried out to help children read the world through their Linguistic landscape. This was to help children observe and discover the various languages in the language ecology of their area as well as get to know the functions and some meanings of the various languages in their linguistic landscape. Thus, children get to discover endangered languages and how all languages are valued by its speakers. In doing these the children learnt how to value and appreciate various languages. This exercise was aimed at developing their linguistic, artistic and scientific competencies. Clemente et al., (2012) carried out their study based on the belief in what Shohamy and Walksman (2009) in their study stated that Linguistic Landscape can be a powerful tool for the development of critical thinking and activism. Here, it should be noted that the children were not taken round their vicinity to observe the signage there but they were allowed to watch videos, read story books and books about their country and other countries (their art, architecture and language) to expose them to the various linguistic landscape of their country and other countries. This research did not engage learners in all the activities stated in Clemente et al., (2012) but allowed learners to interact with some selected signage with misspellings to carry out the experiment in this research.



Our linguistic landscape is deemed by Barrs (2017) as an important source of input for language learning for learners of a target language. Hence even in his EFL class where learners of the English language did not have enough of the target language in their linguistic landscape, they

strove to make use of the little display of the target language in their linguistic landscape. The research conducted by Barrs (2017) for Japanese students who were learning English Language, focused on making the students study their linguistic landscape to look out for signage in English Language. Here, the students were specifically tasked to look out for the location of those signage in the English Language, how the language has been used on the signage and to investigate the reason for the use of English Language on those signage. Thus, though in Japan, English Language is learnt as a foreign language, educators in Japan are interested in the emerging trend of using English Language on signage and not only the Japanese language. At the end of the study, students brought up even more observations and ideas than what they were tasked to work on. Interestingly, some students were able to identify some misspellings on some signage in English Language and in submitting their reports, they wrote that they hoped the English Language in the Japanese linguistic landscape could be written better with no errors so that it would not drape the country with any negative image especially in the eyes of tourists. Fortunately, some of the students in Barrs' (2017) study were able to identify some misspellings on these signage but what of situations where learners are not able to identify any such misspellings in their linguistic landscape and hence internalises such inscriptions as the right thing? This research, unlike that carried out by Barrs (2017) focused on learners' spelling competence and its relationship with the misspellings on signage in their linguistic landscape.

Gorter and Cenoz (2015) discussed a research carried out in the Basque country where there was multilingualism in the classroom in that in most schools three languages were taught. That is, the Basque language, Spanish and the English Language. In some schools, French and German were taught. In their research their focus was on the language that dominated the linguistic landscape in the classroom as against the languages that were dominating on the signage in public places.

Because the Government in the Basque country wanted to promote the use of the Basque language, there was a consistent program to train teachers in the use of the Basque language and this produced majority of teachers (85%) who could use and teach the Basque language which was used as a medium of instruction in the lower primary. The catch here is that because in the primary school the policy was to encourage the high use of the Basque language, most of the schools' linguistic landscape were written in the Basque language. This pointed to the fact that educators believed learners do pay some degree of attention to signage, in their linguistic landscape and consider it as one of the most influential tools in language learning outside the classroom setting. Meanwhile, a look at the signage in the public space in Basque country revealed that, Spanish and English language dominated and not Basque language. Thus, in the public space (in Basque) they were not as interested in the learners of the languages as in communicating to people to give direction, and to make business. On this research even though Ghana is a multilingual country, we have one official language (unlike Basque) which is English Language and hence how appropriately it is spelt on signage was considered. Then also the signage considered were not taken from only the schools' linguistic landscape but any of the signage in the public space in the towns where learners are and the focus was on misspellings, on signage written in the English Language and whether they had any connection with learners' spelling competence in the English language.

Szabo (2015) made use of the term, school scape to mean the linguistic landscape in a school. In a research carried out by Szabo (2015) in Hungary, he analysed the visual practices comprising of inscriptions and artistic symbol on the walls of schools and how that linguistic landscape was interpreted within those schools. He observed and took pictures of the linguistic landscape of four elementary schools in Budapest as well as interviewed some teachers of those institutions

concerning the visual practices in the school. In the interview with teachers, teachers were allowed to talk about the reason(s) behind some of the inscriptions and in the process, they ended up talking about the policies of the school concerning the language, and the literacy level the school wished to attain. In Szabo's (2015) research he looked at both private and public schools. His findings were that the linguistic landscapes of public schools were in line with national language policy and culture while the school scape of private schools were mostly motivated by the policies (vision) of the school. One point of departure of Szabo's (2015) study, to this research is that while Szabo dealt with observing school scape and interviewing teachers on the school's visual practices, this research focused on misspellings on signage in public places and its relationship with learners' orthographic competence. Then also the participants used for this research were learners and not students. Lastly, schools sampled for this research were all government schools.

Dumaning and David (2019) in a study, used the linguistic landscape of Oman as pedagogical tools in learning English language. He posited that using the linguistic landscape of learners to teach any second or foreign language makes language learning more practical, authentic and familiar. Hence, there is a bridge between the classroom and learners' community. This is what Bradshaw (2014) meant when he said using the linguistic landscape as an educational tool allows learners to move beyond the classroom and links learner's life in school to their community (p.160). In his study, Dumaning and David (2019) carried out three phases of the research. In the first phase, photographs of shop signs in Oman were taken for the period of three months and first- and second-year English Language and Literature undergraduate students were asked to study these shops signs. Ninety students from the researcher's class were asked to write down the English Language words they remembered from the shop signs in the city's linguistic landscape.

Ten of the students who could not produce any correct English language words they remembered were dropped so finally 80 responses were assessed. 50 of these 80 respondents agreed to do an interview on their observations about the English language words in their linguistic landscape. From the interview of these students, it was clear students learnt new vocabularies, and in turn, became familiar with certain English language words and structure. Correct spellings of English Language words were evidently one essential benefit students acquired at the end of the study. This exemplified the role that linguistic landscape of learners plays in their spelling of words. In Dumaning and David's (2019) study, learners were learning the English language as a foreign language while in this study learners are learning it as a second language. Then also though Dumaning and David (2019) considered the class, structure, spelling and diction of the English Language words used on signs in Oman, this study would concentrate on misspellings on signage (in English language) and its possible correlation to learners' spelling competence in the English language.

2.4 Summary of Literature Review

The literature reviewed presented the empirical studies on linguistic landscape and the development of various literary competence in learners. The empirical evidences espoused here concentrated on whether learners pay attention to signage, whether misspellings on signage militate against the spelling competence of learners and the possibility of signage serving as a literacy resource for improving on learner's literacy competence. Evidence from studies conducted in the literature review presented and the empirical evidence shows that people do pay some degree of attention to signage and hence misspellings on signage in no small way affect the information given to readers as well as probably militate against the language development of learners of the given language who are not competent users of the language. Most studies

presented in this section presented signage (linguistic landscape) as a powerful literary tool in language learning.

This research then can safely fill the gap created by the studies on mainly linguistic landscape and language learning in general with most of the emphasis being on structure and the societal functions of language(s) used on signage. This is because this research worked on misspellings (in the English language) in the linguistic landscape and whether it had any direct relationship to the spelling competence of learners of the English Language as well as the possibility of using our linguistic landscape as a literary tool for teaching English language spellings. The focus on spelling of learners of English as a second language and its possible relationship to misspellings in the linguistic landscape is the first of its kind in Ghana, and outside Ghana, not much studies has been conducted on it.

2.5 Conceptual Theory

This research aimed to carry out an experiment to determine the validity of Krashen (1985) and Krashen (1989) comprehensible input hypothesis in second language learning on the New Juaben Municipality's Linguistic Landscape and its relationship to its learners' spelling competence. A second language is any language one acquires after the acquisition of the first language. The acquisition of the second language can either take place in late childhood, adolescence or adulthood (Ortega, 2009). The scholarly field of second language acquisitions, studies the human ability to grasp languages other than their first language, the various phenomena that influences the process of acquisition and the mind-boggling outcomes that results from learning a second language in different context (Ortega, 2009). Ortega (2009) further elaborated that learners of a second language may not end up with the same proficiency since a lot of factors both cognitive and environment could affect second language acquisition. Second language acquisition inquiries

focused on learners' pathways to getting to the stage of competence in a second language and not on the end results itself. Hence, the emphasis is on the acquisition stages and not on the competence stage (Ortega, 2009)

The researches into second language acquisition resulting in the concepts of second language cannot be down played as it answers a lot of the questions pertaining to the incipient stages of L2 development (Ortega, 2009).

Ortega (2009) list questions pertaining to the appropriate age for the formal acquisition of second language, policies for minority learners to learn the societal predominant language, and the effective teaching method for second language learning in the classroom setting. Ortega (2009) asserted that learners' environment provides the input or linguistic data produced by other competent users of the L2. Here the input or linguistic data refers to the written texts that surrounds learners as well as competent speakers of the target language. This assertion of Ortega (2009) is tied to Krashen (1985) and Krashen (1989) comprehensible input hypothesis which is the concept on which the experiment of this research is hinged. This concept sees the comprehensible input as the one most important source of L2 learning. Comprehensible input refers to language that learners process for meaning and has something to be learnt. That comprehensible input should be slightly above their level. Hence Krashen (1985) refers to it as $i + 1$. Where i -refers to the knowledge or competence level of the learner's target language and 1 refers to the input learnt by the learner. Learners of L2 obtain comprehensible input from their interactions with competent speakers of the language and through written texts that surrounds them such as street signs, personal letters, books and others (Krashen, 1985). According to Krashen (1985), once L2 learners find these input personally relevant, they process it for

meaning and grammar learning will automatically occur. This concept deems input necessary and sufficient for L2 learning.

Krashen (1989) in giving additional evidence for the input hypothesis opined that competence in spelling and vocabulary is most effectively attained by comprehensible input in the form of reading. Here, acquisition of L2 is unconsciously done and is akin to what is termed as incidental learning. The learner does not know he is acquiring as he reads the comprehensive input focusing on the message for meaning (Krashen, 1989). Krashen (1989) referred to Chomsky's (1972) work on language acquisition where Chomsky (1972) maintained that children who grow up in a richer print environment displayed more grammatical competence than those who did not. Krashen (1989) posited that better writers read more outside of school. This position, according to Krashen (1989) was also supported by Hafiz and Tudor (1989). This assertion according to Krashen (1989) was also true for vocabulary and spelling. That is, a lot of comprehensible input in the form of reading is associated with greater competence in vocabulary and spelling. Studies on the relationship between reported leisure reading and spelling has not been extensively done but on the relationship between reported reading and vocabulary acquisition of L2 minimal work has been done. Krashen (1989) referred to one done by Polak and Krashen (1988). In that study Polak and Krashen (1988) found out that college students studying English as a second language who reported more leisure reading performed better on spelling tests. This supported the claim that more comprehensible input results in better spelling ability. Krashen (1989) discussed a study carried out by Pfau's (1967) where some learners of L2 were made to do a lot of sustained silent reading (without any instructions in spelling) in addition to their usual language arts program for two years. The other group of L2 learners were given spelling instructions but not sustained silent reading. After two years, the researcher found no difference in the spelling

competence of subjects used in the experiments and those who were not taking the sustained silent reading. Though it should be noted that the subjects used in the experiments were not worse off too.

Krashen (1989) further presented some experiment carried out on spelling and comprehensible input that support the claim that the written text (whether on signage or books) is a strong input that helps a learner in an L2 learning than instructions on spelling in a classroom situation. One such experiment carried out by Goodman and Goodman (1971) involved a six and half year old named Key whose spelling competence in English language was impressive even though she had no formal instruction on spelling. On a spelling test based on words taken from a third-grader reader, Key had fifty-eight percent of the words correct and in a multiple choice, was able to recognise ninety-one percent of the correct spelling of words. Thus, without any instructions on learning rules and generalisation but only the availability of a rich linguistic environment, the child was able to learn spelling.

In another study referred to by Krashen (1989), carried out this time on older learners (from grade two to eight) was Curtiss and Dolch (1939) who sought to administer a test of 500 spelling words taught in grades two to eight and words which were not taught in these grades. This study sought to find out how well the learners could spell the words they have not yet studied and how they could spell those they had already studied. From the results of the experiment it was clear that learners could spell words they had not been taught and were slightly above their level. For instance, sixth graders could spell 71.2% of the seventh-grade words. It should be noted here that learners vastly improved on the spelling of words taught them in previous years. Hence, fifth graders scored 83.7% on the list for third graders which was far higher compared to the 79.6% and 71.8% for the fourth and third graders respectively. Concerning the words that none of the

learners and studied each grade was able to spell some of those words. A look at the eighth graders showed that they were able to score 82.3% of those words. According to Krashen (1989) this exemplified that there could be acquisition of spelling competence without instruction.

Krashen (1989) went on to cite another study conducted by Thompson (1930) where ninety percent or more learners could spell words given out to them without being taught those words. Another report cited in Krashen (1989) was that of Hughes (1966) that showed that about two-thirds of his fourth-grade subjects could correctly spell seventy-five percent of the words suggested for study that year.

Tyler (1939) cited in Krashen (1989) also reported that there was a marked improvement in the spelling ability of sixth grade learners when they were tasked on reading wide (in addition to a variety of learning activities) on a fifteen-week unit on history and geography. Tyler (1939) brought to the fore that learners at the end of the period were able to spell specialised words. Hence in the pre-test, the typical score was eighty out of two-hundred and sixty as against an average score of one-hundred and seven out of two-hundred and sixty in the post-test. To Tyler (1939) pursuit of various activities like reading of text in a learner's linguistic environment improves learner's spelling of words and stock of vocabulary.

According to Krashen (1989) in another study conducted by Kyte (1948) some excellent spellers (learners of L2) were excused from spelling instruction for a period of time. After that period, those excellent spellers who were reported good readers, continued to improve on their spelling without instruction.

For Cornman (1902) as cited in Krashen (1989) his conclusion that instruction on spelling was negligible stemmed from his study carried out on two elementary schools for three years, where

all spelling instructions were dropped for that period of three years. However, spelling errors in composition were still corrected by teachers when they were marking. After the three years it was clear that the uninstructed students (in spelling) in those two elementary schools continued to improve in spelling and did as well as the previous years' classes or like students in other schools who were good spellers.

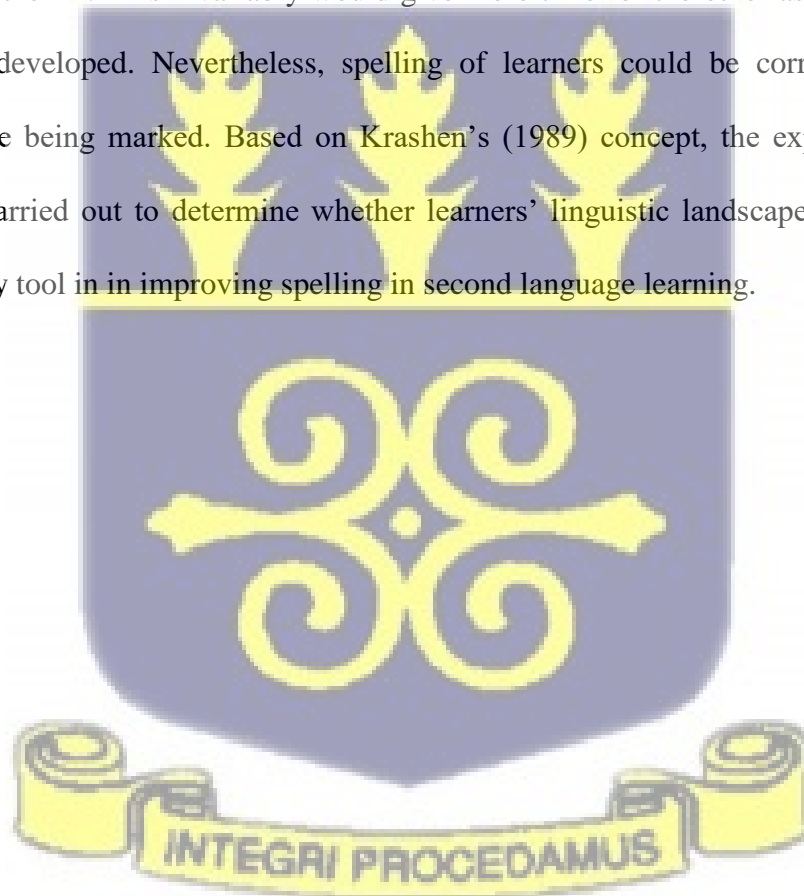
Cornman's (1902) conclusion for Krashen (1989) was reinforced by Richards (1920) who studied learners in grade six, seven and eight totalling seven eight, who went without instruction on spelling for a year. The results were that sixty-seven-point five percent (67.5%) of the learners improved more than one year in spelling during that time. Twenty-point four percent (20.4%) made no change while only twelve percent (12%) got worse. Krashen concludes that if subjects who were not instructed in spelling still improved in their spellings, then certainly those subjects may have had a rich linguistic environment that fed their stock of vocabulary and spelling.

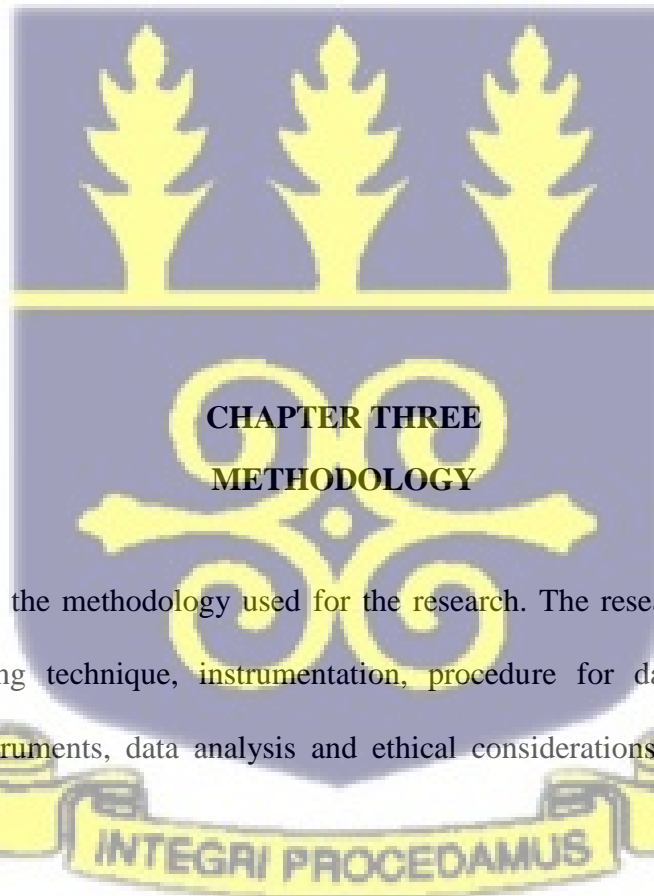
2.6 Implication for the Study

The first most essential implication of Krashen (1985) and Krashen (1989) comprehensible input hypothesis on this research is that learner's proper second language development (in this case spelling) could largely depend on their rich linguistic landscape. Flowing from this assertion, it is implied that a linguistic landscape which has a lot of errors (in spelling) may militate against the proper development of learners' spelling abilities. This study as an experiment sought to find out whether or not learners' linguistic landscape (in the English language) affects their spelling competence in the English language.

The implication of the Krashen's (1989) comprehensible input hypothesis, presupposes that learners are attracted to, and do read messages written on signs in their linguistic landscape. Hence this experiment was to determine whether a vast majority of learners pay attention to or read inscriptions on signage.

The various studies espoused by Krashen (1989) in giving authenticity to his concept meant that learners of L2 could properly improve on their spelling competence by simply reading materials (written in the L2) in their linguistic landscape. This means they may not necessarily need to learn how to spell and educators may use the time for teaching spelling for an L2 for other the other aspects of the L2. This invariably would give more time for the other aspects of the L2 to be taught and developed. Nevertheless, spelling of learners could be corrected when their compositions are being marked. Based on Krashen's (1989) concept, the experiment (for this research) was carried out to determine whether learners' linguistic landscape could serve as a powerful literacy tool in in improving spelling in second language learning.





3.0 Introduction

This chapter presents the methodology used for the research. The research design, population, sample size, sampling technique, instrumentation, procedure for data collection, validity, reliability of the instruments, data analysis and ethical considerations for this research were detailed here.

3.1 Research Design

An experimental research design was used for this study. Specifically, the quasi-experimental research design was adopted for the study as comparisons were done between the selected

groups' pre-test and post-test to arrive at the results of the experiment carried out in this research (Robson, 2011). This research aimed to test a hypothesis in second language learning and hence it was suitable to use a research design that brought out the relationships between independent and dependent variables. Thus Key (1997) in the thesis handbook of Oklahoma State University, stated that a quasi-experimental design in a research helps the researcher to test a given hypothesis in order to arrive at valid conclusions about relationships between independent and dependent variables. In line with the quasi-experimental design, the researcher worked within a conceptual framework of linguistic landscape serving as an input for second language learning. This was supported by Key (1997) who maintained that one mark of this type of research was that there had to be a conceptual framework within which the experiment is carried out.

3.2 Population

The population for the study involved two classes from two Senior High Schools in the New Juaben Municipality of the Eastern Region of Ghana totalling eighty-nine (89) learners. One of the schools is a mixed school while the other is a single-sex school. The choice of these two schools in the municipality was because the researcher sought to get a school in the category 'A' and one from category 'B' according to GES ranking so the population size for this research would consist of learners with varying intellectual abilities. This will ensure the results from this research will be a fair representation of the learners in the municipality. The population totalled

eighty-nine (89) as it was the total number of the learners in the two classes from the two schools selected.

3.3 Sample Size

The sample size for the study was Fifty (50) learners. The selected classes were from one classes. The sample size was fifty because on the day of the pre-test, not all students in both classes (in the two schools) were in school. On the day of the post test too, some of the students who took the pre-test were not present in school. Hence to ensure reliable results, only students who took both the pre-test and post test and were in school (and thus exposed to the selected signages for the given period of time), were used.

3.4 Sampling Technique

Purposive sampling technique was used to select the particular class level. The researcher needed a group of people who will provide the best information in order to get needed information, (Etikan & Bala, 2017). The selected “vocabularies” used for the experiment were not too much below or above their level. The rationale for carrying out this research in the Senior High Schools was that it provided representation of learners who resided in other regions apart from the Eastern Region of Ghana as well as learners from various local language groups in Ghana.

3.5 Instrumentation

A dichotomous and open-ended questions on a questionnaire were developed by the researcher to elicit response on whether learners read inscriptions on signage in their linguistic landscape as well as to establish that the learners (used for this experiment) were from different local language groups in Ghana and were L2 speakers of the English language. The rationale for developing the questionnaire was that the researcher saw it will help learners to recall the needed information for this research. As one of the basic and well-known tools in research, questionnaire is

invaluable for accessing information on participants' knowledge and attitude towards events they have experienced (Bird, 2009). The researcher also made use of selected signage with some misspellings on them to collect data from participants of the study. These signage were used to create the needed environment in learners' classrooms within which the researcher carried out the experiment needed for this study.

3.6 Validity of the Instruments

The instruments (questionnaire and the sample of signage) were given to the researcher's two supervisors to have their expert opinions on how to state certain items on the questionnaires as well as check the legibility of items on the signage used for the experiment. Their comments were considered by the researcher in the final preparation of these instruments for the data collection.

3.7 Reliability of the Instruments

The reliability of the instruments was ascertained after the researcher administered them in one of the forms one classes (which was not used for the experiment in this research) in one of the selected schools. This exercise was aimed at finding out whether the items on the questionnaire were clear. After that exercise, that class was exposed to a sample of the signage to be used for this research for some time and dictation based on some of the selected "words" on the signage were given to the learners. This was to enable the researcher check the reliability of the instrument (signage) for the experiment.

3.8 Procedure for Data Collection

The researcher secured an introductory letter from the Department of English in the University of Ghana, Legon. With that introductory letter, the researcher sought permission of the Assistant Headmaster (academic) and the Teacher of core English Language of the classes that were used

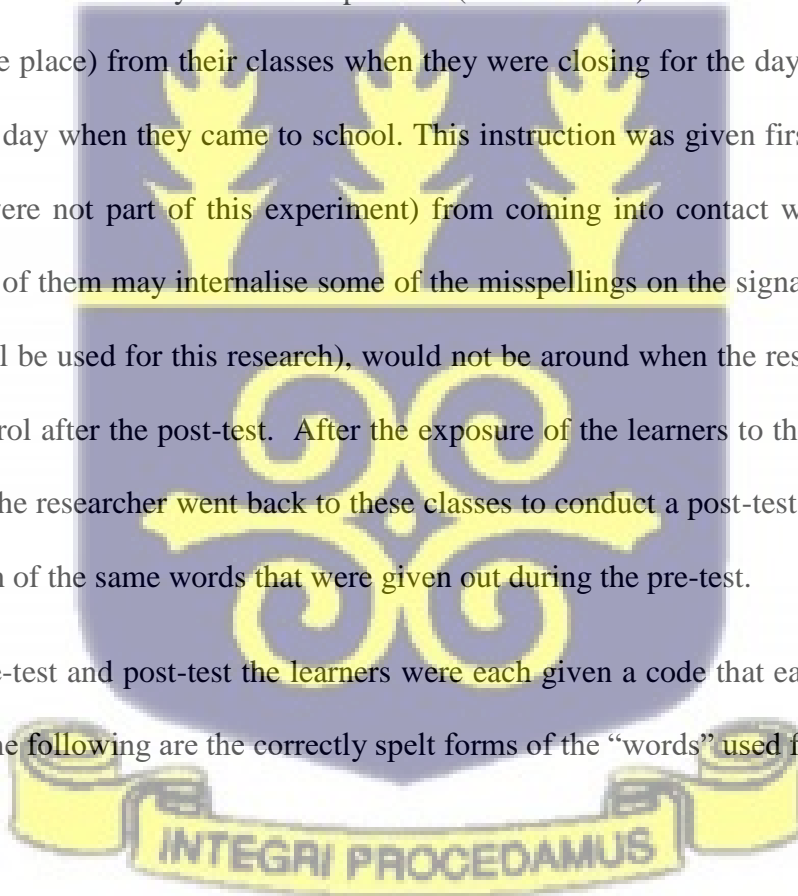
for the experiment. The classes were informed about the exercise (and its nature) before the exercise took off.

The questionnaires were administered to the class to determine the various home regions of the learners, their first language, and to find whether they read inscriptions on signage in their linguistic landscape. The researcher gave the participants a pre-test in the form of spelling dictation of ten selected words based on the misspelt words on the selected signage taken from the linguistic landscape of the Eastern Region of Ghana and (one of the signage was) from the greater Accra Region. Each class were then given samples of signage (on paper posters) to be displayed in those classes only. The class prefects (of each class) were tasked to put away the signage (in a safe place) from their classes when they were closing for the day and display them in class the next day when they came to school. This instruction was given first to prevent other students (who were not part of this experiment) from coming into contact with those selected signage as some of them may internalise some of the misspellings on the signage but (unlike the learners who will be used for this research), would not be around when the researcher carries out the damage control after the post-test. After the exposure of the learners to the selected signage for four weeks, the researcher went back to these classes to conduct a post-test in the form of the spelling dictation of the same words that were given out during the pre-test.

For both the pre-test and post-test the learners were each given a code that each maintained for both the tests. The following are the correctly spelt forms of the “words” used for the pre-test and post-test:

Mattress

Grateful



Writing

Cabinet

Dining

Stuffed

Corner

League

Barbering

Salon

It should be noted that students were made aware that the researcher would be back to conduct a post-test but they were not notified that the researcher sought to find out if they would be influenced by the misspellings on the signage. After the conduct of the post-test, the researcher discussed the correct spelling of the words used in the tests with students.

Learners' attention were drawn to the fact that as learners of the English language, they should be interested in cross-checking the correct spelling of words (in the English Language) in their linguistic landscape and that would go a long way in improving their knowledge and competence of the English Language.

3.9 Data Analysis and Discussion

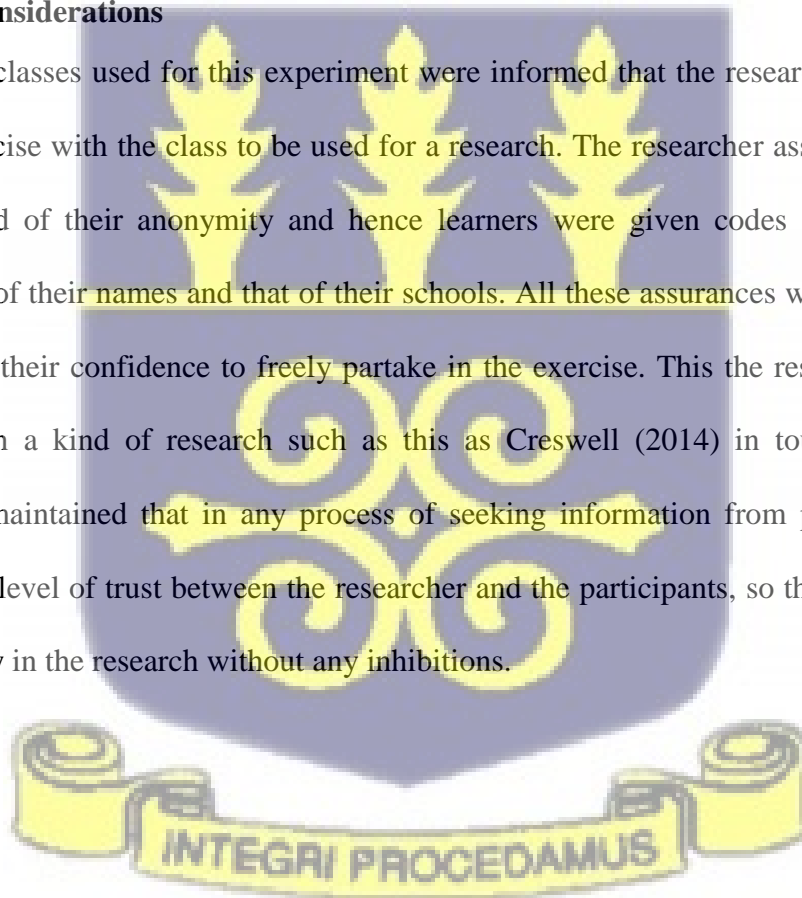
The questionnaires filled in by learners were analysed first. Here the number of learners from the various regions, the various local languages in Ghana and their percentages accompanied with their pictorial representations were presented. The number and percentage of learners whose L2 is English language was also shown. The number and percentage of learners who read

inscriptions on signage and those who do not read inscriptions along with their pictorial representations followed up. Each analysis was followed up with its discussion.

In analysing the data, each learner's pre-test and post- test were compared to see if there were any influence of the misspellings on the signage on learner's post-test or not. In determining this, each learner's ten items on the pre-test was compared to its corresponding items on the post-test. Each learner's analysis of the pre-test and post-test was presented in a tabular form. The researcher then presented a graphical representation of the number of students (that the analysis showed) were affected by the misspelling on the signage and those who were not affected.

3.10 Ethical Considerations

Learners in the classes used for this experiment were informed that the researcher was going to conduct an exercise with the class to be used for a research. The researcher assured learners and the schools used of their anonymity and hence learners were given codes as their marks of identity instead of their names and that of their schools. All these assurances were given to them in a bid to gain their confidence to freely partake in the exercise. This the researcher, saw was very essential in a kind of research such as this as Creswell (2014) in touching on ethical considerations maintained that in any process of seeking information from participants, there should be some level of trust between the researcher and the participants, so the participants can participate freely in the research without any inhibitions.





CHAPTER FOUR

ANALYSIS OF DATA AND DISCUSSION OF RESULTS

4.0 Introduction

This chapter deals with the analysis and discussion of the results from the questionnaires and the spelling dictation that was given to learners in the pre and post-test of this experiment.

Learners used for this experiment fell within the range of fifteen to eighteen (15-18) years. It is interesting to note that most of the work done on linguistic landscape used the youth. Examples

are research works done by Deganis et al., (2009) who focused on the responses of elementary school children to their visual and print environment, that of Cenoz and Gorter (2008) who looked at linguistic input as potential for second language development and even the foundation work done on linguistic landscape by Landry and Bourhis (1997) dealt with psycholinguistic research on adolescents' responses to signage in their environment. Thus, the age range of the learners used in this research is in conformity to the various studies (cited above) which used the youth in the studies on linguistic landscape. Learners used in this research were residents in four different regions (out of the 10 regions then) in Ghana. Though experiments (Quasi-experiment) have more internal validity, it does not mean that they do not have external validity (Mutz, 2011) hence, the researcher felt that given different learners from different regions in Ghana, the administration of these questionnaires and this experiment with them would have produced the same results that learners from these four regions have produced (Campbell & Stanley, 1996). Subsequently the results from these questionnaires and experiments can safely be used as a generalisation for all second language learners of English language in Ghana.

Results from the questionnaires have been presented in a tabular form as well as in a graphical form.

The analysis of the questionnaire given to students elucidated:

(i)The various regions where learners resided: This was meant to bring out the number of regions in Ghana where learners who were used for this research resided and hence acted as representation of such regions. Though the results showed that learners came from four (4) out of the ten (10) regions then, the researcher believes results from this experiment can safely be used as generalisation for all second language learners in Ghana as Mutz, 2011 opines that, though Quasi-experiments have internal validity, it does not they do not have external validity.

(ii)The various local languages (L1) of students (indicating the number of learners whose L2 is English language): This item on the questionnaire sought to establish firmly that all learners used for this work were second language speakers of the English language.

(iii) The number of students who read inscription on signage in their linguistic landscape as against those that did not do so: This item sought to find out if learners do read inscriptions on signage in their linguistic landscape and the results would could determine how much attention educators and law makers should give to inscriptions on our signage as a country where English is our language of education and governance.

The pre-test and post-test of students' spellings based on selected signage that students were exposed to for the given period of a month have also been presented here in a tabular and graphical form. The analysis and discussion of these data were set to highlight on the following questions that this research aims to answer:

(i)Do learners read the inscriptions on signage in their linguistic landscape?

(ii) Are learners' spellings competence affected by their linguistic landscape?

(iii)Can learners' linguistic landscape (in the English language) serve as a literary tool in teaching English language spellings?

Pre-test: Pre-test (dictation of some selected words) was carried out on learners before exposing them to the signage which had misspellings on them. This pre-test was set to determine which of the selected words they knew their correct spellings and those they could not spell before the exposure to the selected signage. This would in turn, aid the researcher to measure the extend of the influence that signage have or may not have on learners. After exposure to the signage for about a month, learners took a post-test of the same words that were used in the pre-test. In order

for learners to get the words that they were supposed to write and to avoid confusion (due to the existence of homonyms and homophones in the English language) during the pre-test and post-test each of the words were used in context. The researcher in giving out the words used it in contexts such as: (i) Mattress – ‘Every student sleep on a **mattress** in this school’. (ii) Grateful – ‘I am **grateful** for the kind gesture shown me’. (iii) Writing – ‘The pupils are **writing** their end of term exams’. (iv) Cabinet – ‘We need to clean out the **cabinet** so our things could be arranged neatly in them’. (v) Dining – ‘Students are always admonished to eat at the **dining** hall.’ (vi) Stuffed – ‘The pillow has been **stuffed** with wool to make it comfortable to sleep on’. (vii) Corner – ‘My favourite spot is in the **corner** of this room’. (viii) League – ‘The UEFA champions’ **league** is showing on GTV right now’. (ix) Barbering – ‘My brother owns a **barbering** salon’. (x) Salon – ‘I always get my washed at the beauty **salon**’.

Post- test: Learners were given a post-test of the same selected words which were given in the pre-test after exposure to the selected signage for the given period of time. This was to help the researcher to compare each learner’s pre-test and post-test to determine the extent to which inscriptions on signage influences learners of English as a second language.

Each learner’s pre-test and post-test was compared and discussed. Learners were given codes and thus they will be referred to by (in the discussion) by their codes.

Lay-out and keys for the analysis of students’ pre-test and post-test: The following were the lay-out and keys for the analysis of learners’ pre-test and post-test: the sign * after any word in the tables (as written by the students) indicates that the word was wrongly written. The symbol ✓ after any word in the tables indicate a correct spelling of the word. Any word in the table that would be **bolded** and **underlined** is an indication that that word was born out of the influence of the misspelt words on the signage the learners were exposed to. Words which were misspelt in

the pre-test but correctly in the post-test in spite of the exposure to the misspellings would be in **italics**. Words which were spelt correctly at the pre-test but were misspelt in the post-test (though not exactly as that on the signage) would be put into slashes //.

* = wrongly spelt word

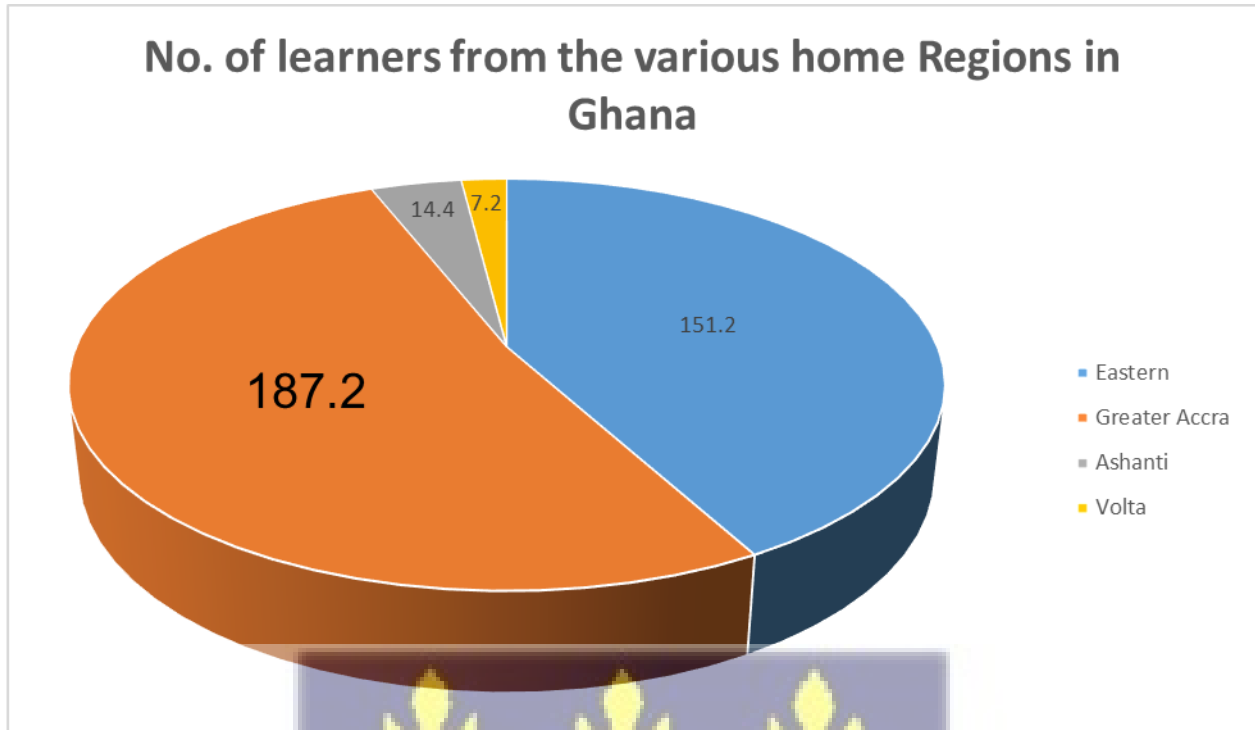
√ = correctly spelt word

// = words that were misspelt in the post-test though it was spelt correctly in the pre-test (the misspellings are not the same as that on the signage).

4.1 Analysis of data and discussion of questions on learners' home regions and their various local language groups (L1).

Home regions of learners	Number of learners	Percentages (%)
Greater Accra	26	52%
Eastern	21	42%
Ashanti	2	4%
Volta	1	2%

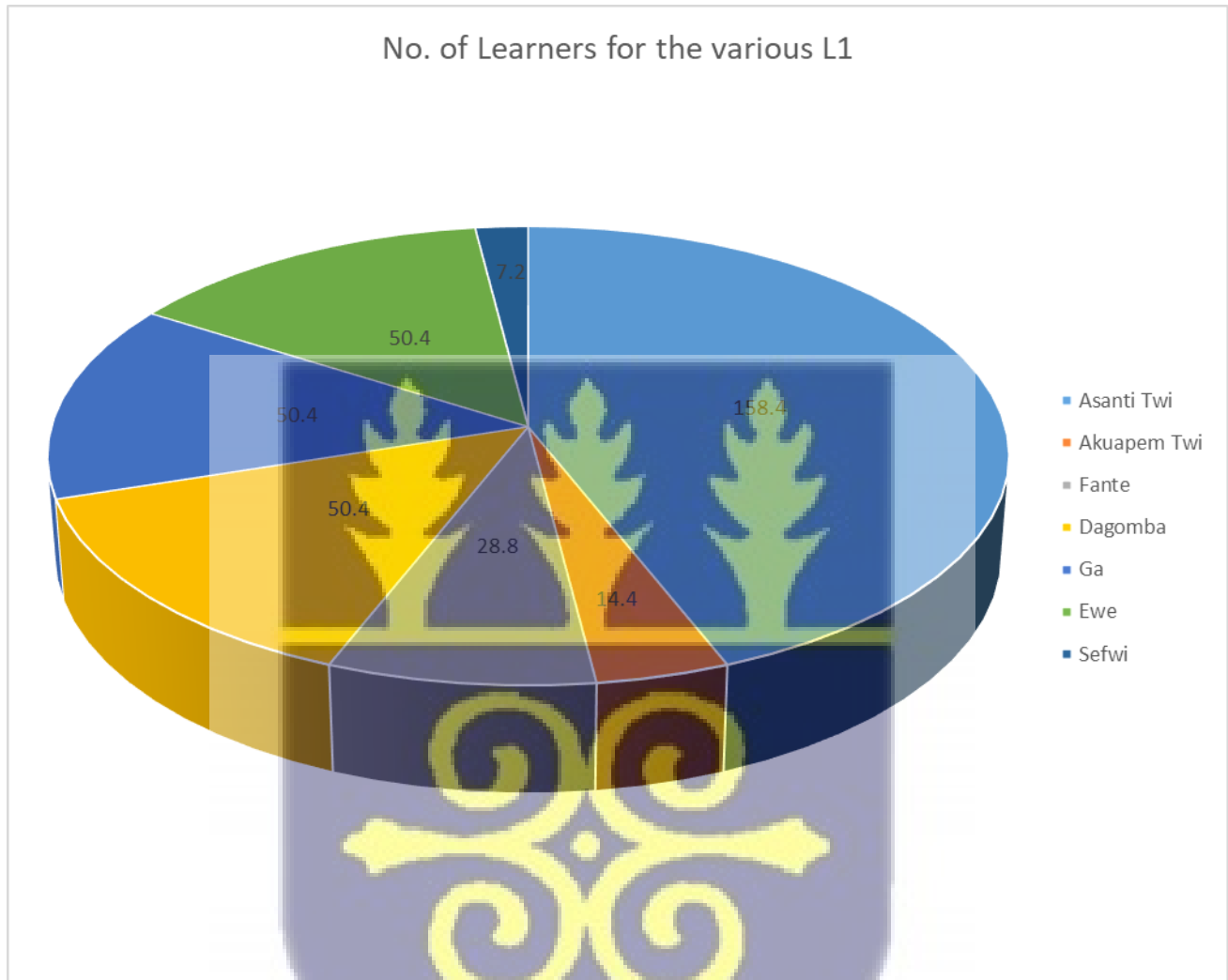




The number of learners for the various L1 (first language)

L1 of learners	Number of learners	Percentages (%)
Asante twi	22	44%
Ga	7	14%
Dangbe	7	14%
Ewe	7	14%
Fante	4	8%
Akuapem twi	2	4%

Sefwi	1	2%
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The fifty (50) learners (from both schools put together) who answered the questionnaires were in senior high schools and aged between fifteen to eighteen (15-18) years.

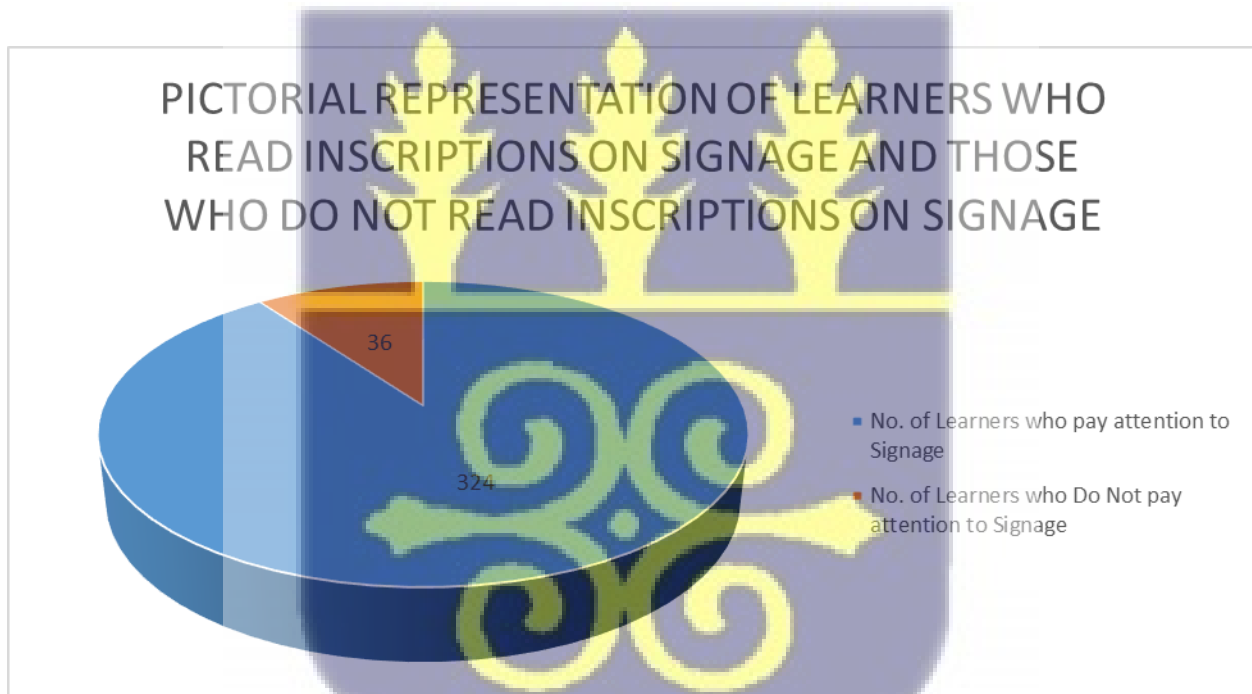
It was evident from the analysis that learners resided (home regions) in four out of the ten regions of Ghana. All learners admitted that English was their second language (L2) and hence stated their various first language (L1) as presented above. This established the basis on which

this research could test Krashen’s (1989) concept of linguistic landscape as input for second language learners.

4.2 Results: Research Question 1: Do learners read inscriptions on Signage?

4.2(a) Presentation of data on Results of Research Question 1

No of learners who read inscriptions on signage they come across	Percentage	No of learners who do not read inscriptions on signage they come across	Percentage
48	96%	2	4%



4.2(b) Discussion of Results of Research Question 1

From the results of the last item on the questionnaires, majority (96%) of the learners said they read inscriptions on signage in their linguistics landscape. Flowing from that it meant only a minority of (4%) did not read inscriptions on signage. This is not much of a surprise as Schnaps (2007) in Cenoz and Gorter (2008) posited that the significant investments in advertising

companies shows that texts in the public space brings Economic benefits to the companies who put up those text and invariably it means that people do pay some level of attention to signage, in their linguistic landscape. ReelEz display Inc. (2020) certainly had all the reason to be concerned about advertising companies that were not allowing companies like theirs to edit their advertising signage for them. Krashen (1985) and Krashen (1989) posited that learners of L2 picked input from texts that surrounds them (linguistic landscape). This assertion then meant learners pay attention to or read signage they came across confirming Krashen's (1985) and Krashen (1989) concept of learners of L2 reading texts that surrounds them. This finding is corroborated by the various studies carried out by Curtis and Dolch (1939), Hafiz and Tudor (1989), Polak and Krashen (1989), Goodman and Goodman (1971), Tyler (1939) and Cornman (1902) which establish that learners do read texts that surrounds them.

4.3 Results: Research Question 2: Do misspellings on signage affect learners' spelling competence?

Here, the researcher going to provide data based on each of the fifty (50) students' pre-test and post-test. Hence, for each student, the code given to the student as a form of identity is written on his or her paper (for example, PE01, PO12); then on the left side of the data is shown results of the student's pre-test while the post-test is shown on the right side. On each of fifty results shown, words that were spelt correctly or wrongly, where a student spells a word correctly in the pre-test but misspells in the post-test exactly like the one on the signage they were exposed to or misspells in the post-test but not according to the fashion of the misspelling on the post-test, are all indicated on the data presented with the keys indicated at the last part of section 4.0 under the sub-heading, keys and lay-out of students' pre-test and post-test. Where a student leaves a column blank, it is marked wrong with the **key** indicated in this research as the sign for a misspelling.

4.3(a) Presentation of data on Results of Research Question 2

(SCHOOL B)

PE01

PRE-TEST

POST-TEST

Matress *	Matress *
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dinning *	<i>Dining</i> ✓
Staffed *	Staffed *
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Salon ✓



PE02

PRE-TEST

POST-TEST

Matress *	Matress *
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Carbinate *	<i>Cabinet</i> ✓
Dinning *	Dinning *
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Salon ✓

PRE-TEST

POST-TEST

Materest *	Materest *
Greatful *	Greatful *
Writing ✓	Writing ✓
Carbonate *	Carbenet *
Dinning *	Dinning *
Stuffed ✓	/Staffed / *
Corner ✓	/Coner/ *
Leag *	*
Babbering*	Barbring *

Salon ✓	Salon ✓
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PE04

PRE-TEST

POST-TEST

Matress *	<i>Matress</i> ✓
Greatful *	<i>Grateful</i> ✓
Writing ✓	<i>Writing</i> ✓
Cabinet ✓	<u>Carbinet</u> *
Dinning *	Dinning *
Stuffed ✓	Staved *
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	/Babarring/ *
Salon ✓	/Saloom/ *



PE05

PRE-TEST

POST-TEST

Matress *	<i>Mattress</i> ✓
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinat *	<i>Cabinet</i> ✓
Dinning *	Dinning *
Stuffed ✓	Staffed *
Corner ✓	Corner ✓
*	League ✓
Barbering	/Babbering/ *
Salom *	<i>Salon</i> ✓

PRE-TEST

POST-TEST

Mattress ✓	/Matrest /*
Grateful ✓	<u>Greatful</u> *
Writing ✓	<u>Writting</u> *
Carbinet *	Combente *
Dinning *	Dinning *
Stuffed ✓	/Staf/ *
Corner ✓	Corner ✓
League ✓	/Leak / *
Barbering ✓	/Barbring/ *

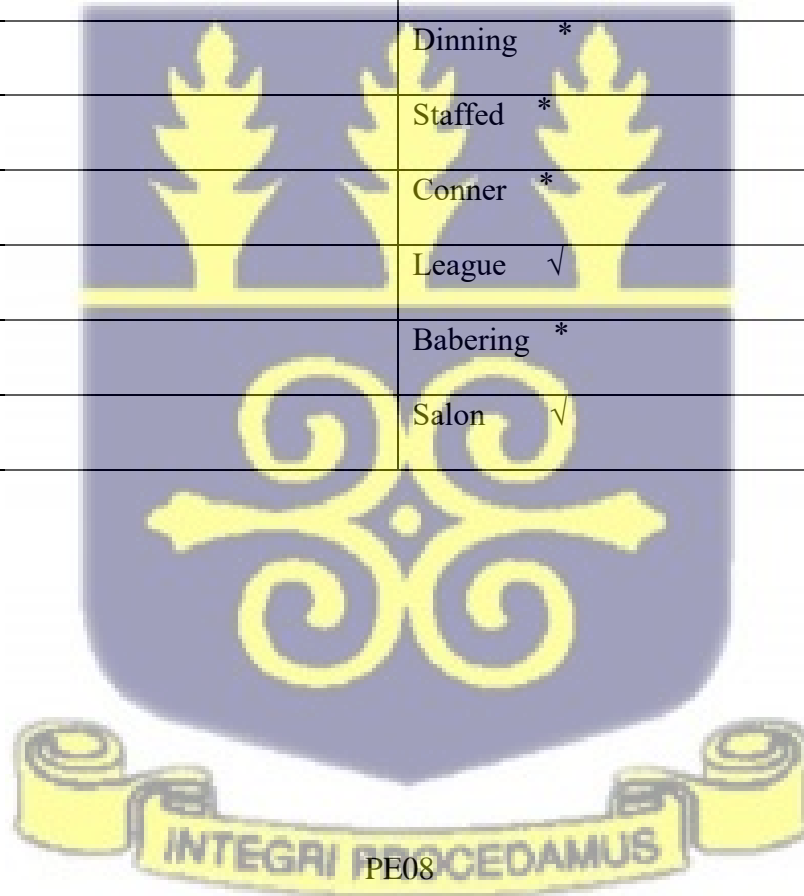
Salon ✓	/Saron / *
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PE07

PRE-TEST

POST-TEST

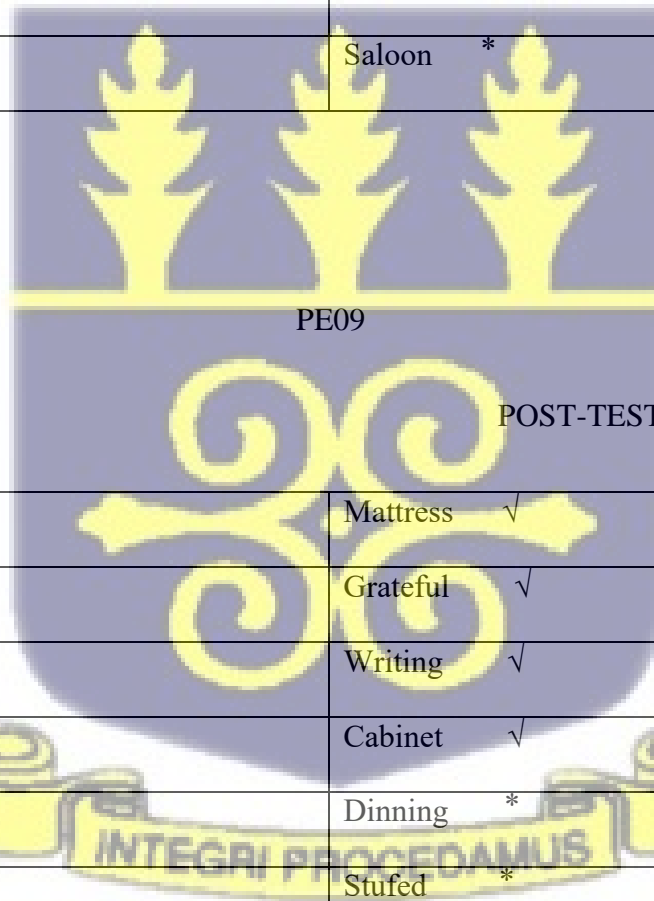
Matress *	Matress *
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabnet *	Cabbnet *
Dinning *	Dinning *
Staffed *	Staffed *
Conner *	Conner *
League ✓	League ✓
Babering *	Babering *
Salon ✓	Salon ✓



PRE-TEST

POST-TEST

Mattress ✓	Mattress ✓
Grateful ✓	Grateful ✓
Writing ✓	<u>Writting</u> *
Cabinet ✓	Cabinet ✓
Dinning *	Dinning *
Stuffed ✓	/Staffed/ *
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Saloon *	Saloon *



PRE-TEST

POST-TEST

Mattress ✓	Mattress ✓
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dinning *	Dinning *
Stufed *	Stufed *
Corner ✓	Corner ✓

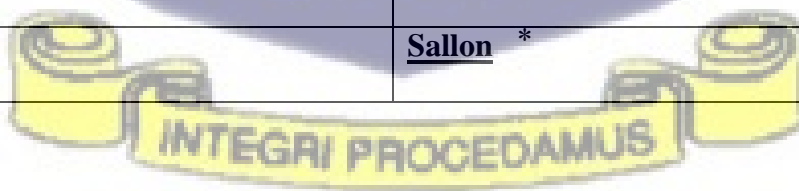
League ✓	League ✓
Barbering ✓	Barbering ✓
Saloon *	Saloon *

PE10

PRE-TEST

POST-TEST

Matress *	Matress *
Grateful ✓	Grateful ✓
Writting *	Writting *
Cabinet ✓	Cabinet ✓
Dinning *	Dinning *
Staughed*	<i>Stuffed</i> ✓
Corner ✓	Corner ✓
League ✓	League ✓
Babering *	Babbering*
Saloon *	<u>Sallon</u> *

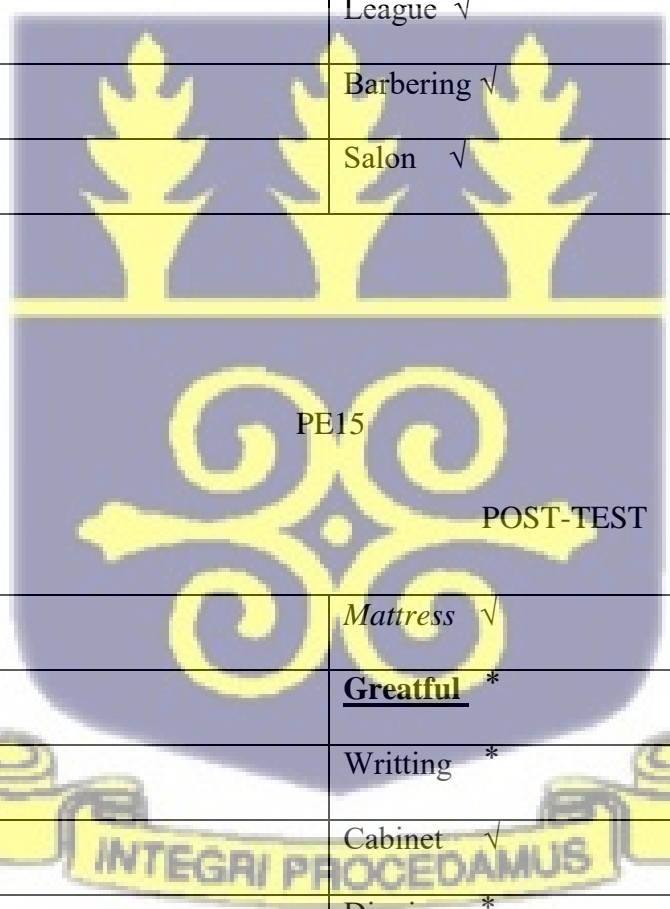


PE11

PRE-TEST

POST-TEST

Maters *	Marters *
Grateful ✓	<u>Greatful</u> *
Wrting *	Writting *
Carbenet *	<u>Carbinet</u> *
Dinning *	Dinning *
Staved *	Staffed *
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Salon ✓



PRE-TEST

POST-TEST

Matress *	<i>Mattress</i> ✓
Grateful ✓	<u>Greatful</u> *
Writting *	Writting *
Cabnet *	Cabinet ✓
Dinning *	Dinning *
Staved *	Staffed *

Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Saloom *	<i>Salon</i> ✓

PE16

PRE-TEST

POST-TEST

Matress *	<i>Mattress</i> ✓
Greatful *	Greatful *
Writing ✓	Writing ✓
Cabenet *	Cabinet ✓
Dining ✓	Dianning *
Staft *	Staffed *
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	/Babbering/ *
Salon ✓	/Saloon/ *

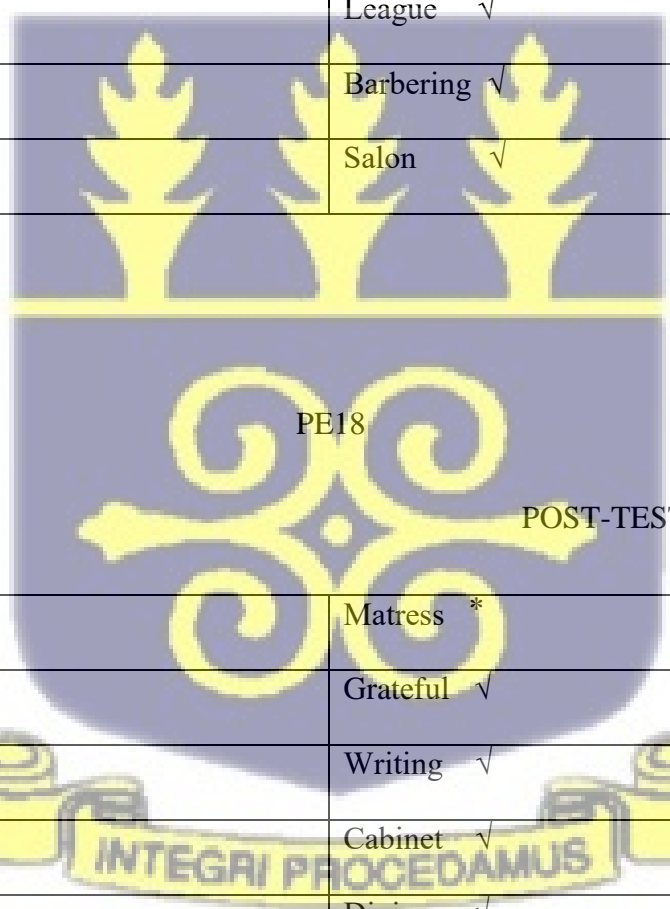


PE17

PRE-TEST

POST-TEST

Matress *	Matress *
Greatful *	Greatful *
Writing √	Writing √
Cabenet *	<u>Carbinet</u> *
Dining √	<u>Dinning</u> *
Staffed *	<i>Stuffed</i> √
Corner √	Corner √
League √	League √
Barbering √	Barbering √
Salon √	Salon √



PE18

PRE-TEST

POST-TEST

Matress *	Matress *
Grateful √	Grateful √
Writing √	Writing √
Cabinet √	Cabinet √
Dining √	Dining √
Stuffed √	Stuffed √

Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Saloon *	/Salon/ ✓

PE19

PRE-TEST

POST-TEST

Matress *	Matress *
Greatful *	<i>Grateful</i> ✓
Writing ✓	Writing ✓
Cabinet ✓	/Cabinent/ *
Dining ✓	Dining ✓
Staffed *	Staffed ✓
Corner ✓	Corner ✓
Legue *	<i>League</i> ✓
Babbering *	Babing *
Saloon *	<i>Salon</i> ✓

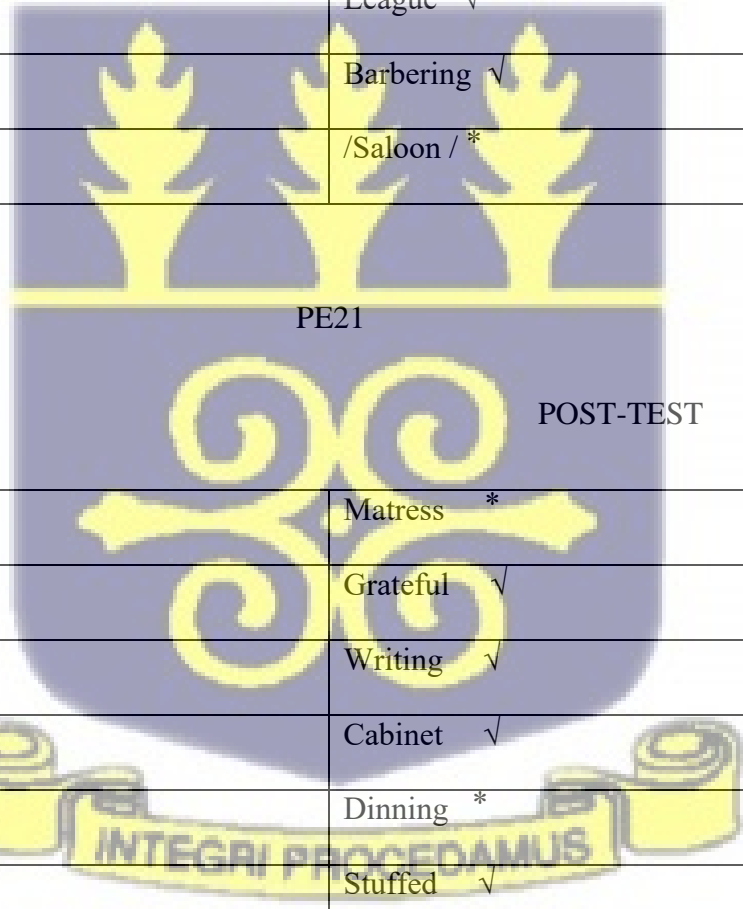


PE20

PRE-TEST

POST-TEST

Mattress ✓	Mattress ✓
Grateful ✓	<u>Greatful</u> *
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dinning *	Dinning *
Stuffed ✓	/Stuff/ *
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	/Saloon / *



PE21

PRE-TEST

POST-TEST

Matress *	Matress *
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dinning *	Dinning *
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓

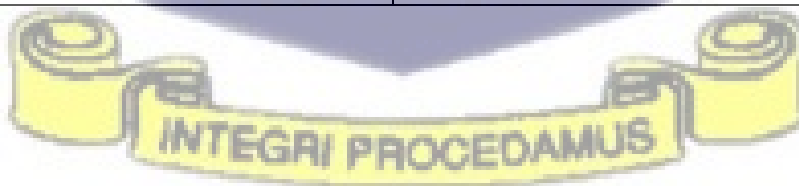
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Salon ✓

PE22

PRE-TEST

POST- TEST

Matress *	Mattress ✓
Greatful *	<i>Grateful</i> ✓
Writing ✓	<u>Writting</u> *
Cabinet ✓	/Cabnet/ *
Dinning *	Dinning *
Stuffed ✓	/Staved/ *
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Salon ✓

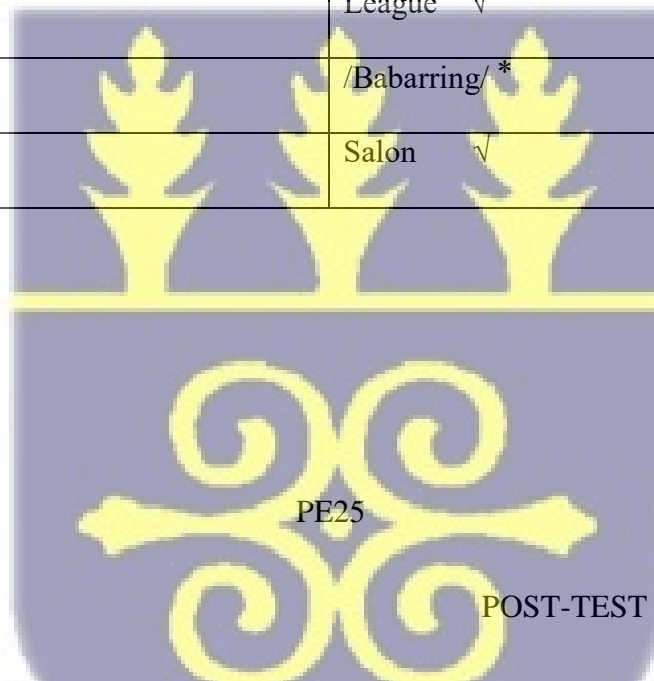


PE24

PRE-TEST

POST-TEST

Matress *	Mattress √
Greatful *	<i>Gretful</i> *
Writting *	Writting *
Cabilet *	Carbinet *
Dinning *	Dinning *
Staved *	Staffed *
Coner *	<i>Corner</i> √
League √	League √
Barbering √	/Babarring/ *
Salon √	Salon √



PRE-TEST

POST-TEST

Mattress √	<u>Matress</u> *
Grateful √	Grateful √
Writing √	<u>Writting</u> *
Cabnet *	Cabnet *
Dinning *	Dinning *

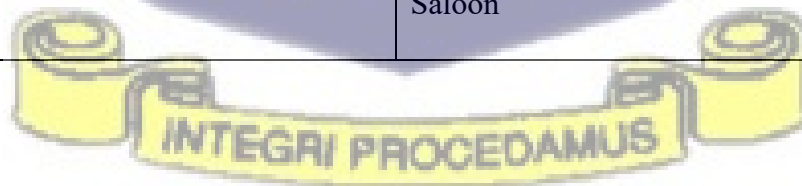
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Saloon *	Saloon *

PE26

PRE-TEST

POST-TEST

Matress *	Matress *
Greatful *	Greatful *
Writting *	<i>Writing</i> ✓
Cabinet ✓	Cabinet ✓
Dinning *	Dinning *
Starfed *	Staffed *
Coner *	Coner *
League ✓	League ✓
Barbering ✓	Barbering ✓
Saloon *	Saloon *



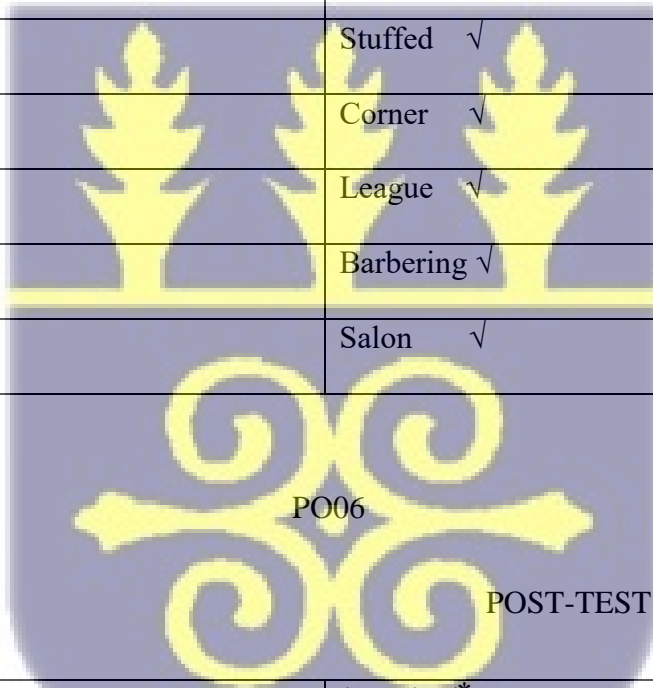
(SCHOOL A)

PO01

PRE-TEST

POST-TEST

Mattress ✓	Mattress ✓
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dining ✓	<u>Dinning</u> *
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Salon ✓



PRE-TEST

POST-TEST

Mattress ✓	/Matrice/*
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Carbinet *	Carbinet *
Dining ✓	Dinning *

Stuffed ✓	Stuffed✓
Corner✓	Corner ✓
League ✓	League✓
Barbering✓	Barbering✓
Salon✓	<u>Sallon</u> *

PO07

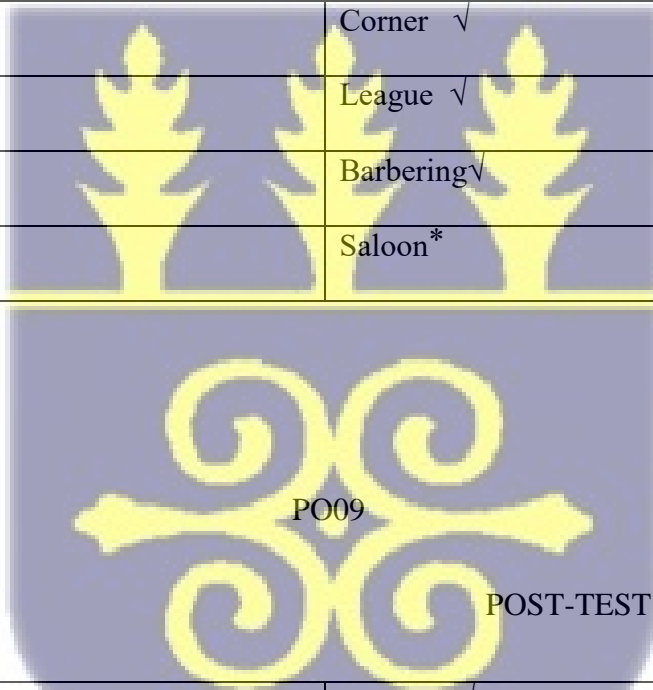
PRE-TEST	POST-TEST
Matress *	Mattress ✓
Grateful ✓	Grateful ✓
Writting*	<i>Writing</i> ✓
Carbenet*	<i>Cabinet</i> ✓
Dinning*	<i>Dining</i> ✓
Stuffed✓	Stuffed ✓
Corner ✓	Corner ✓
League✓	League ✓
Barbering✓	Barbering✓
Salon✓	Salon✓

PO08

PRE-TEST

POST-TEST

Matress *	<i>Mattress</i> √
Grateful √	Grateful √
Writing√	Writing √
Cabinet√	<u>Carbinet</u> *
Dining √	Dining √
Staphed*	Starved *
Corner √	Corner √
League √	League √
Barbering√	Barbering√
Salom *	Saloon *



PRE-TEST

POST-TEST

Mattress√	Mattress √
Grateful √	<u>Greatful</u> *
Writing√	Writing √
Cabinet√	Cabinet √
Dinning*	<i>Dining</i> √

Stuffed ✓	/Staffed/ *
Corner ✓	Corner ✓
League ✓	League ✓
Barbering✓	Barbering✓
Salon✓	Salon✓

PO10

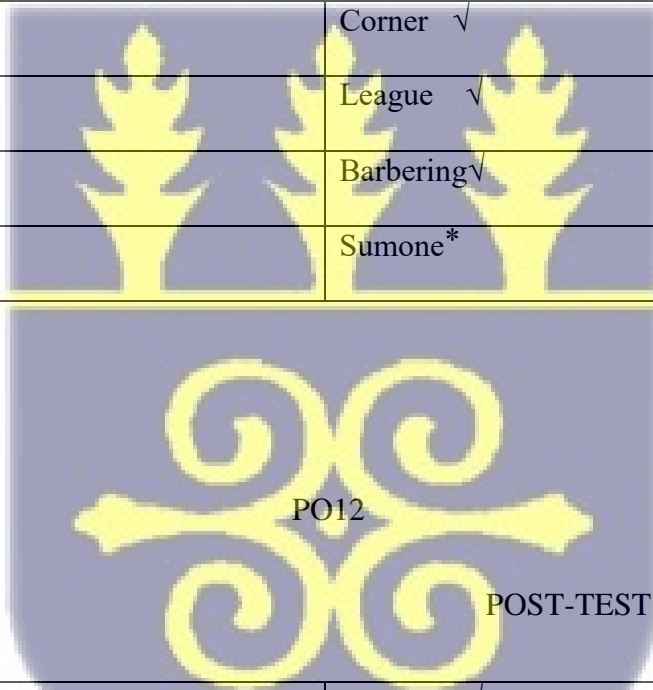
PRE-TEST	POST-TEST
Matress *	Matress *
Grateful ✓	Grateful ✓
Writting*	Writing ✓
Cabinet ✓	Cabinet ✓
Dinning *	Dining ✓
Stuffed ✓	Stuffed ✓
Corner ✓	<u>Corrner</u> *
League ✓	League ✓
Barbering✓	/Barbbering/ *
Salon	Salon

PO11

PRE-TEST

POST-TEST

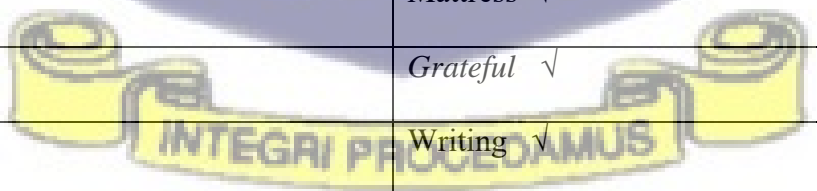
Mattress ✓	<u>Matress</u> *
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dining ✓	<u>Dinning</u> *
Stuffed ✓	/Staffed / *
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Sumone *



PRE-TEST

POST-TEST

Mattress ✓	Mattress ✓
Grateful *	<i>Grateful</i> ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dinning *	<i>Dining</i> ✓



Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbaring*	<i>Barbering</i> ✓
Salon ✓	Salon✓

PO13

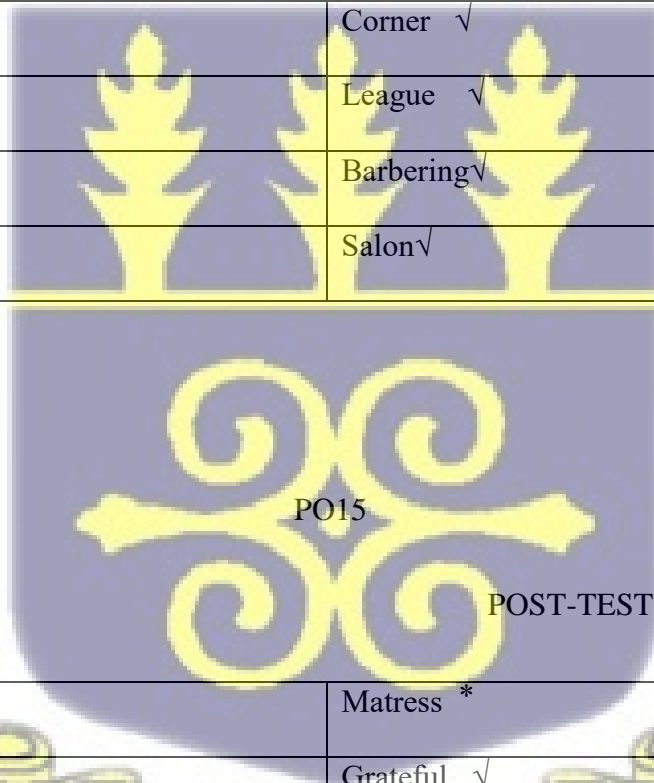
PRE-TEST	POST-TEST
Matress *	<i>Mattress</i> ✓
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dining ✓	Dining ✓
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salom *	<u>Sallon</u> *

PO14

PRE-TEST

POST-TEST

Matress *	Matress *
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dining ✓	Dining ✓
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Salon ✓



PO15

PRE-TEST

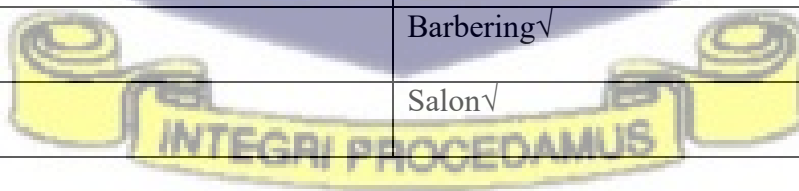
POST-TEST

Matress *	Matress *
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	<u>Carbinet</u> *
Dinning *	<i>Dining</i> ✓

Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering✓	Barbering✓
Saloon *	Saloon *

PO16

PRE-TEST	POST-TEST
Matress *	Matress *
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Carbinet *	Carbinet *
Dining	Dining ✓
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering✓	Barbering✓
Salon✓	Salon✓

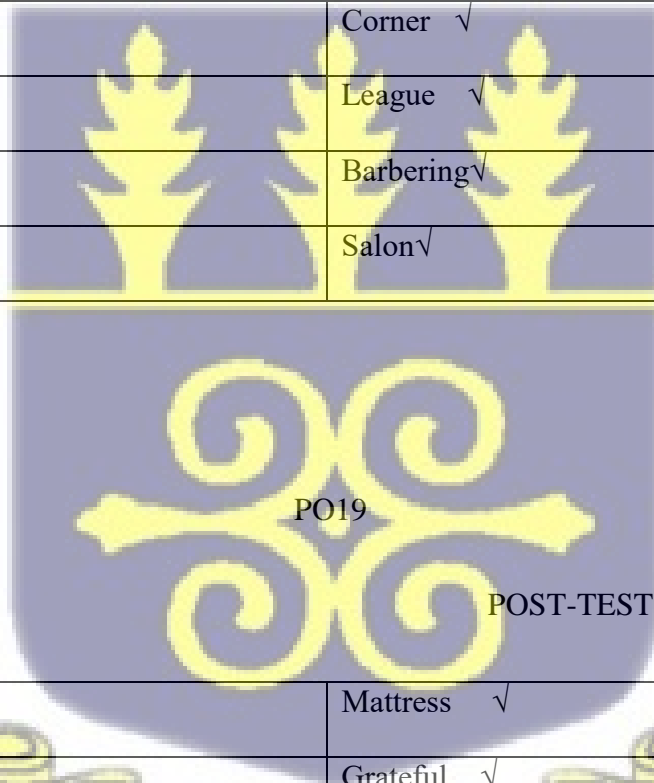


PO17

PRE-TEST

POST-TEST

Mattress ✓	<u>Matress</u> *
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dining ✓	Dining ✓
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Salon ✓



PRE-TEST

POST-TEST

Mattress ✓	Mattress ✓
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dining ✓	Dining ✓

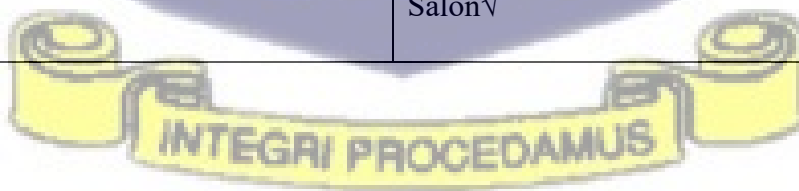
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	/Barbaring/ *
Salon ✓	Salon ✓

PO20

PRE-TEST

POST-TEST

Mattress ✓	<u>Matress</u> *
Grateful ✓	<u>Greatful</u> *
Writing ✓	Writing ✓
Cabinet ✓	<u>Carbinet</u> *
Dining ✓	Dining ✓
Stuffed ✓	/Starfed/ *
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Salon ✓

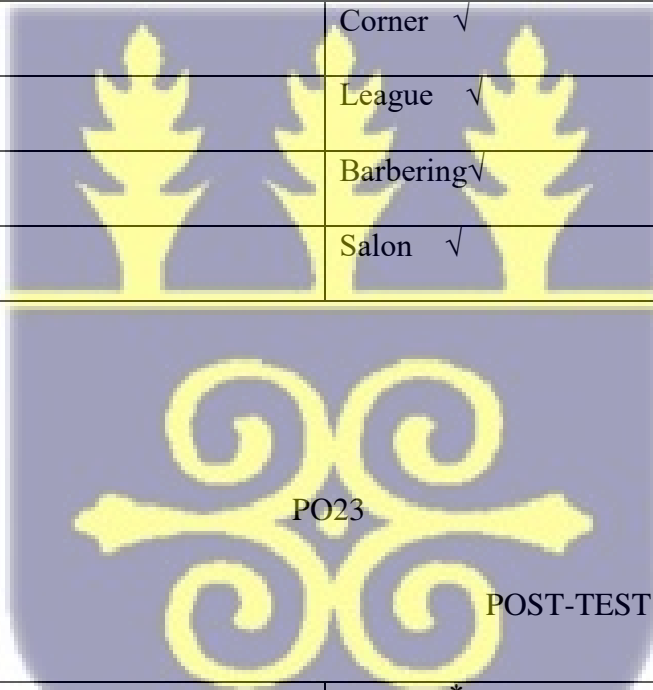


PO21

PRE-TEST

POST-TEST

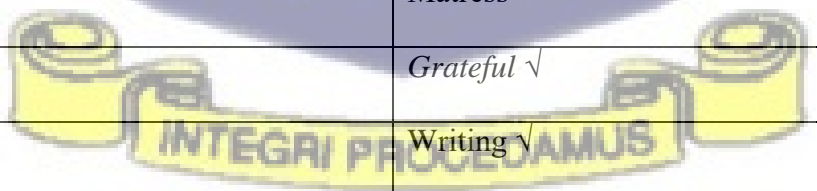
Mattress ✓	Mattress ✓
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dinning *	<i>Dining</i> ✓
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Salon ✓



PRE-TEST

POST-TEST

Matress *	Matress *
Greatful *	<i>Grateful</i> ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dinning *	Dining ✓



Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering✓	/Babbering/ *
Saloon *	Salon✓

PO24

PRE-TEST	POST-TEST
Mattress ✓	Mattress ✓
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dining ✓	Dining ✓
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering✓	Barbering✓
Salon ✓	Salon ✓

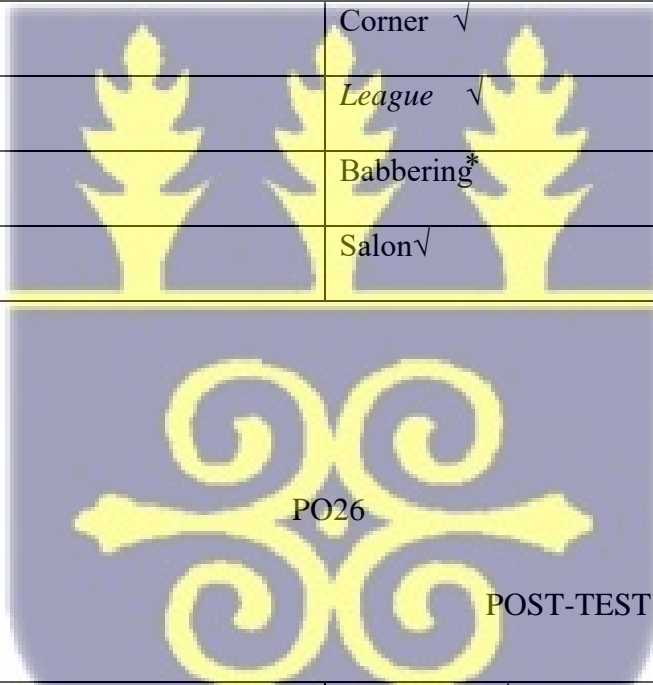


PO25

PRE-TEST

POST-TEST

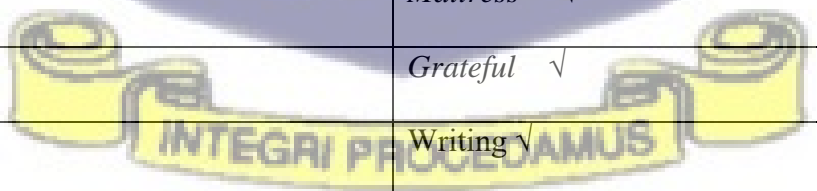
Mattress ✓	<u>Matress</u> *
Grateful ✓	/Greateful/ *
Writing ✓	Writing ✓
Cabinet ✓	<u>Carbinet</u> *
Dinning *	Dinning *
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
Legue	<i>League</i> ✓
Babbering*	Babbering*
Salon✓	Salon✓



PRE-TEST

POST-TEST

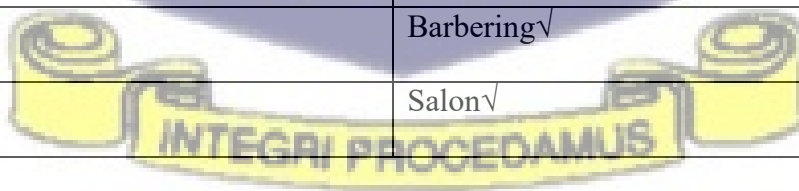
Matress *	<i>Matress</i> ✓
Greatful *	<i>Grateful</i> ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dining ✓	Dining ✓



Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Babbering *	Babering *
Salon✓	Salon✓

PO29

PRE-TEST	POST-TEST
Mattress ✓	Mattress ✓
Greatful *	<i>Grateful</i> ✓
Writting*	<i>Writing</i> ✓
Carbinet *	<i>Cabinet</i> ✓
Dinning *	<i>Dining</i> ✓
Stuffed ✓	Stuffed ✓
Coner*	<i>Corner</i> ✓
League ✓	League ✓
Barbering✓	Barbering✓
Salon✓	Salon✓

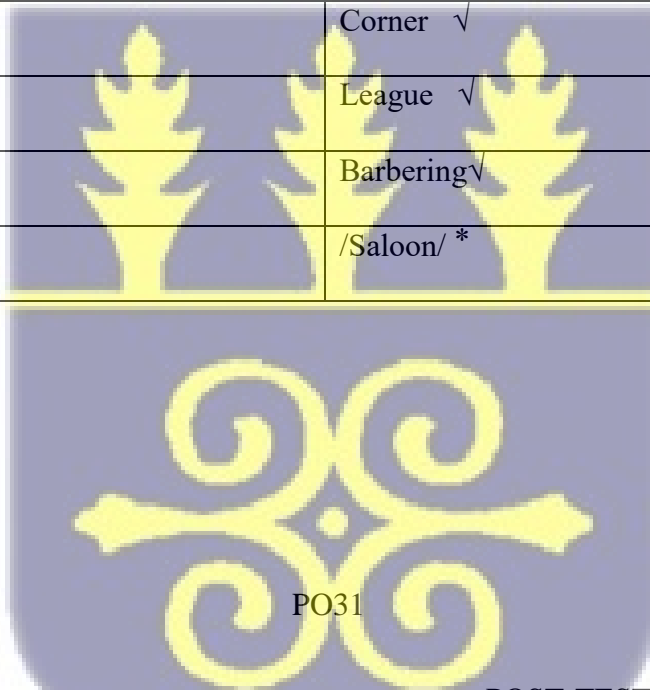


PO30

PRE-TEST

POST-TEST

Mattress ✓	<u>Matress</u> *
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dining ✓	Dining ✓
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	/Saloon/ *



PRE-TEST

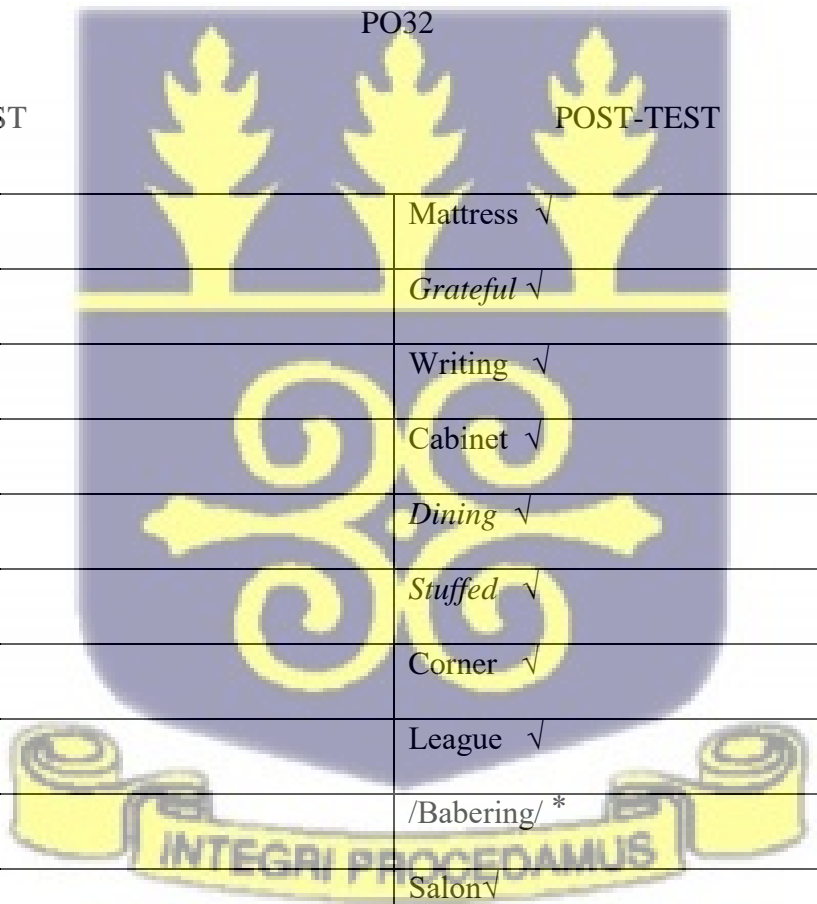
POST-TEST

Mattress ✓	Mattress ✓
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓

Dining ✓	Dining ✓
Stuffed ✓	Stuffed ✓
Corner ✓	/Coner/ *
League ✓	League ✓
Barbering✓	Barbering✓
Salon✓	Salon✓

PO32

PRE-TEST	POST-TEST
Mattress ✓	Mattress ✓
Greatful *	<i>Grateful</i> ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dinning *	<i>Dining</i> ✓
Staffed*	<i>Stuffed</i> ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering✓	/Babering/ *
Salon✓	Salon✓

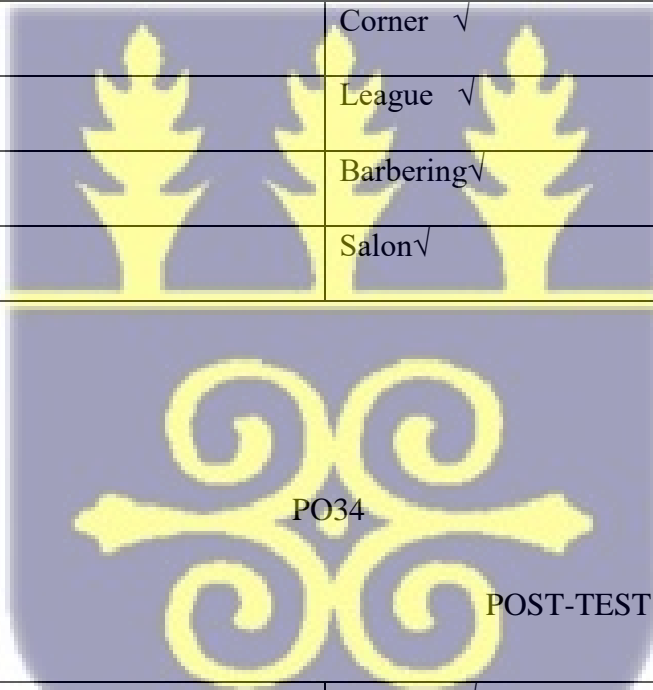


PO33

PRE-TEST

POST-TEST

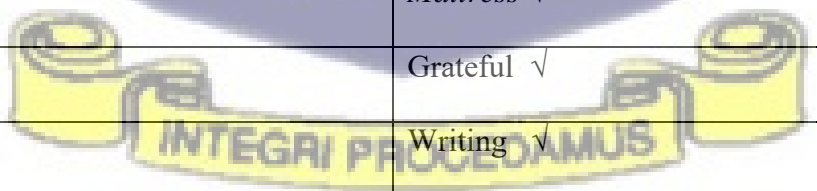
Mattress ✓	Mattress ✓
Greatful*	<i>Grateful</i> ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dining ✓	Dining ✓
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering✓	Barbering✓
Salon✓	Salon✓



PRE-TEST

POST-TEST

Matress *	<i>Mattress</i> ✓
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dinning *	Dinning *



Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering✓	Barbering✓
Salon✓	/Saloon/ *

PO35

PRE-TEST	POST-TEST
Matress *	<i>Mattress</i> ✓
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Carbinet *	<i>Cabinet</i> ✓
Dinning *	Dinning *
Starved *	<i>Stuffed</i> ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering✓
Saloon *	Salon✓

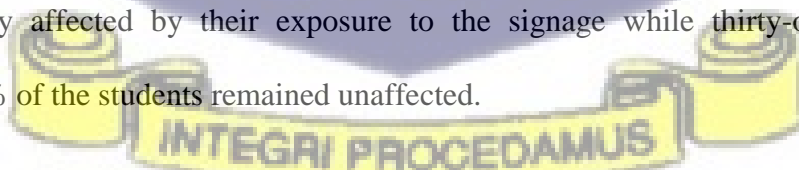
PO36

PRE-TEST

POST-TEST

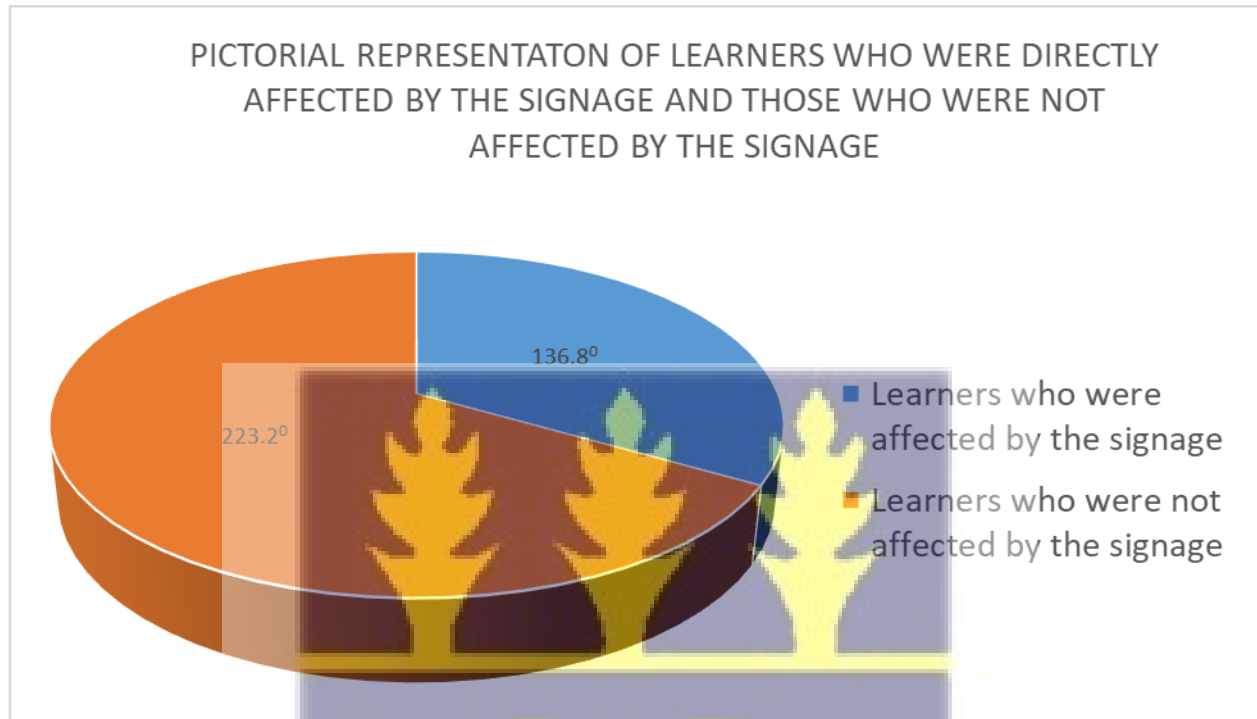
Matress *	Matress *
Grateful ✓	Grateful ✓
Writing ✓	Writing ✓
Cabinet ✓	Cabinet ✓
Dining ✓	Dining ✓
Stuffed ✓	Stuffed ✓
Corner ✓	Corner ✓
League ✓	League ✓
Barbering ✓	Barbering ✓
Salon ✓	Salon ✓

Percentage of students who were directly affected by the signage and those who were not directly affected by the signage: From the students' pre-test and post-test shown in section 4.3, the results indicate that only nineteen (19) students representing 38% of learners had their spellings directly affected by their exposure to the signage while thirty-one (31) students representing 62% of the students remained unaffected.



No of learners whose spellings were directly	Percentage	No of learners who were not affected by the signage	Percentage

affected by the signage			
19	38%	31	62%



The brown area in the pie chart which represent 223.2 degrees represents learners who were not directly affected by their exposure to the signage while the blue area which is 136.8 degree represents the students who were directly affected by the signage. This indicates that only a minority of students were directly affected by their exposure to the selected signage.

4.3(b) Discussion of Results of Research Question 2

For PE01, the words ‘mattress’ and ‘stuffed’ were misspelt in the same way for both the pre-test and post-test. Thus, for those two words there was no influence from the learner’s exposure to the signage. Interestingly, though the word ‘dining’ was misspelt in the pre-test, in the post-test it was spelt correctly. This could probably be that the learner did not pay attention to the signage he or she was exposed to or he did not internalise what was on the signage but sought to find out the correct spellings of the words after the pre-text. Hence the results from PE01 indicates the signage did not have an influence on this learner.

PE02 misspelt both ‘mattress’ and ‘dining’ before and after the exposure the signage. With ‘cabinet’ it was misspelt before the exposure to the signage but interestingly, was spelt correctly after the exposure. That pointed to the fact that the learner was not influenced by the signage. indicates the learner was not influenced by the signage since the words, ‘mattress’, ‘grateful’, ‘cabinet’, ‘dining’ ‘league’ and ‘barbering’ were misspelt

A look at the pre-test and post-test of PE03 before and after exposure to the signage. One catchy development here is that the words ‘stuffed’ and ‘corner’ were spelt correctly at the pre-test but were misspelt at the post-test. Those misspellings at the post-test was not consistent with what was on the signage they were exposed to; thus, one cannot say that the signage influenced the learner but probably the learner was not sure about the spellings of these words.

With PE04 the words ‘mattress’ and ‘grateful’ were misspelt in both the pre-test and the post-test, while the words ‘barbering’ and ‘salon’ were spelt correctly at the pre-test but misspelt in the post-test. In spite of this it cannot be said that those particular two misspellings were influenced by the signage since those misspellings were not consistent with the ones on the signage’. With the spelling of the word ‘cabinet’, the learner may certainly have been influenced

by the signage since it was spelt correctly in the pre-test but was misspelt like the one the signage (they were exposed to) in the post-test.

Interestingly, PE05 misspelt the words ‘mattress’, ‘cabinet’ and ‘salon’ in the pre-test but spelt these same words correctly in the post-test after the exposure to the signage which had those words misspelt. Could it mean that though some learners may not know the correct spellings of certain words they were able to differentiate between correct and misspelt words? Could it be that this might have pushed the learner to find out the correct spellings of the words from a credible source such as the dictionary? This certainly might be why Ortega (2009) further emphasised that learners of a second language may not end up with the same proficiency since a lot of factors both cognitive and environment could affect second language acquisition. Attitude of the learner, as one of the affective factors posited in Ortega (2009) might have propelled PE05 to look out for the correct spellings of those two words he or she felt were misspelt in his or her post-test. PE05 did not attempt the spelling of ‘league’ in the pre-test but his or her attempt at its spelling in the post-test was misspelt, but its misspelling was not consistent with the its misspelling on the signage. Though the word ‘stuffed’ was misspelt in the post-test after it had been spelt correctly in the pre-test, it was not due to an influence from the signage because this learner’s misspelling of ‘stuffed’ was not the same as what was on the signage.

In analysing the pre-test and post-test of PE06 it is clear that his or her misspellings of ‘dining’ and ‘cabinet’ is not as a result of the signage he or she was exposed to. PE06 exemplifies Cenox and Gorter’s (2008) claim of the linguistic landscape being a source of input for learners of L2. Hence the words ‘grateful’ and ‘writing’ which were written correctly in the pre-test were misspelt exactly as the ones on the signage in the post-test. The words ‘stuffed’, ‘league’, ‘barbering’ and ‘salon’ spelt correctly in the pre-test were misspelt in the post-test but since their

misspellings were not consistent with the ones on the signage they were exposed to, we cannot say those misspellings were as a result of the learner's exposure to the researcher's signage.

PE07 was not influenced by the exposure to signage. The words 'mattress', 'dining', 'stuffed' and 'barbering' which were misspelt in the pre-test were misspelt in the same style in the post-test. The word 'cabinet' misspelt in the pre-test had a slight variation of misspelling in the post-test but not in the fashion of the one on the signage.

PE08 showed evidence of an influence by the signage in the spelling of the words 'stuffed' and 'writing'. Thus, though in the pre-test the words were correctly spelt by the learner it was wrongly spelt in the post-test. 'Writing' was wrongly spelt like the one on the signage while 'stuffed' in the post-test was wrongly spelt but not like the misspelling of the word on the signage. With the words, 'dining' and 'salon' it was clear that the learner was not influenced by the signage he was exposed to since the misspellings of these words are the same for both the pre-test and post-test.

It was evident PE09 was not in the least influenced by the signage since the words 'dining', 'stuffed' and 'salon' misspelt in the pre-test were also misspelt in the post-test in the same fashion.

PE10 remained unaffected by the exposure to the signage since the words misspelt in the pre-test, that is 'mattress', 'writing', 'dining' 'barbering' and 'salon' were also misspelt in the post-test and these misspelling in the post-test were not the same as those on the signage. It is only the word 'stuffed' that was correctly spelt in the post-test though it was wrongly spelt in the pre-test.

PE11 had a direct influence by the signage in his spelling of the word 'grateful'. Curiously enough with the words, 'mattress', 'writing', 'cabinet' and 'dinning', they were all misspelt in

the pre-test and post-test in the same fashion. Though 'stuffed' was misspelt in both tests, its misspellings were in different fashions and the post-test spelling was not the same as those on the signage they were exposed to.

Before the exposure to the signage, PE I5 misspelt 'mattress', 'writing', 'cabinet', 'dinning', 'stuffed' and 'salon' but in the post-test 'writing' and 'dining' were correctly spelt while the rest remained misspelt. A direct influence of the signage they were exposed was seen in that learner's spelling of 'grateful' in the post-test. Thus though 'grateful' was correctly spelt in the pre-test, it was wrongly spelt in the post-test after the fashion of the misspelling on the signage.

PE16 showed no evidence of the influence of the signage of him/her. Thus 'grateful' and 'stuffed' were misspelt in both tests. One thing worthy of note was that though 'mattress' and 'cabinet' were misspelt in the pre-test, they are correctly spelt in the post-test. Then 'dining' was also spelt correctly in the pre-test, but was misspelt in the post-test; here, the misspelling was not synonymous to the one on the signage.

There was one evidence of the effect of the exposure to the signage on PE17. The words 'mattress', 'grateful' and 'cabinet' misspelt in the pre-test were also misspelt in the post test though there was a slight variation in the spelling of 'cabinet' in the post test. 'Stuffed' was misspelt in the pre-test but surprisingly after the exposure to the misspelling of the signage, this learner was able to spell the word correctly. The effect of the misspelling on the signage was seen in that learner's spelling of 'dining' in the post-test. It was misspelt like the one on the signage (they were exposed to) though in the pre-test PE17 spelt 'dining' correctly.

PE18's misspelling of 'mattress' is maintained in both tests. Though 'salon' was misspelt in the pre-test, it was spelt correctly in the post-test.

PE19 also remained unaffected to the exposure to the misspellings on the signage. The misspellings of the words 'mattress' and 'stuffed' remained unchanged in both the pre-test and the post-test. Even the misspellings of the words 'barbering' in the pre-test which was also misspelt in the post-test had no consistency with the misspelling on the signage. But then the words 'grateful', 'league' and 'salon' though misspelt in the pre-test was spelt correctly in the post-test.

An effect of the misspelling that the learners were exposed was evident in PE19's misspelling of 'grateful' in the post-test. It was misspelt exactly like that on the signage though the words were correctly spelt in this learner's pre-test. The words 'salon' and 'stuffed' spelt correctly in the pre-test were misspelt in the post-test but those misspellings were not the same as the ones on the signage. The misspelling of 'dining' was maintained in both the pre-test and the post-test.

From his/her pre-test and post-test PE21 believed his/her spellings were all correct because none of his spellings in the pre-test changed in the post-test. The two words 'mattress' and 'dining' which were misspelt in the pre-test were misspelt in the same fashion in the post-test. Here there was no evidence of the influence of the signage on PE21.

The misspelling of 'writing' on the signage that the learners were exposed to had an effect on PE22 as his/her correct spelling of 'writing' in the pre-test changed to the misspelling of that word as it was represented on the signage in the post-test. The spelling of 'dining' was maintained in both the pre-test and the post-test. This could signify that, the learner felt that was the correct spelling of the word and thus did not bother to look for the correct spelling of that word. 'Mattress' and 'grateful' were misspelt in the pre-test but curiously enough, these words were correctly spelt in the post-test. It could be that after the pre-test the learner took the trouble to look for the correct spellings of the words. On the other hand, and 'cabinet' and 'stuffed'

which were spelt correctly in the pre-test were, misspelt in the post-test, though the misspelling were not the same as that on the signage they were exposed to.

PE 24 it seemed was not affected by the exposure to the signage thus, the words 'grateful' 'writing' 'cabinet', 'dining' and 'stuffed' which were misspelt in the pre-test were also misspelt in the post-test. But then, 'corner' and 'mattresses' which were misspelt in the pre-test were spelt correctly in the post-test.

PE 25 showed evidence of the effect of the signage he/she was exposed to. With the words 'dining', 'cabinet' and 'salon' that learner seemed to have been Though 'mattress' and 'writing' were correctly spelt in the pre-test, in the post-test, both words were misspelt like those on the signage. unaffected by his exposure to the signage since those words were misspelt in both the pre-test and post-test. Interestingly, though 'league' was wrongly spelt in the pre-test it was correctly spelt in the post-test after the learners were exposed to the misspellings on the signage.

The words 'mattress', 'grateful', 'dining', 'stuffed', 'corner' and 'salon' which were misspelt by PE26 in the pre-test were also misspelt the same way in the post-test. It could be PE26 was convinced those spelling were the correct ones and thus never bothered to look them up in a dictionary or any reliable source after the pre-test. That again brings in Ortega (2009) explanation that certain affective factors like the attitude of learners towards the learning of his target language (L2) influence the learner's competence in that language even in the face of all the favourable condition set for the learning of the language. But it seems with the word 'writing' PE26 might have made an effort to look for its correct spelling after the pre-test, (where it was wrongly spelt) since 'writing' was correctly spelt in the post-test.

Interestingly though PO01 had almost everything correct (except one) in pre-test but was affected by the signage since in the post-test “dining” was spelt wrongly as exactly like the one on the signage.

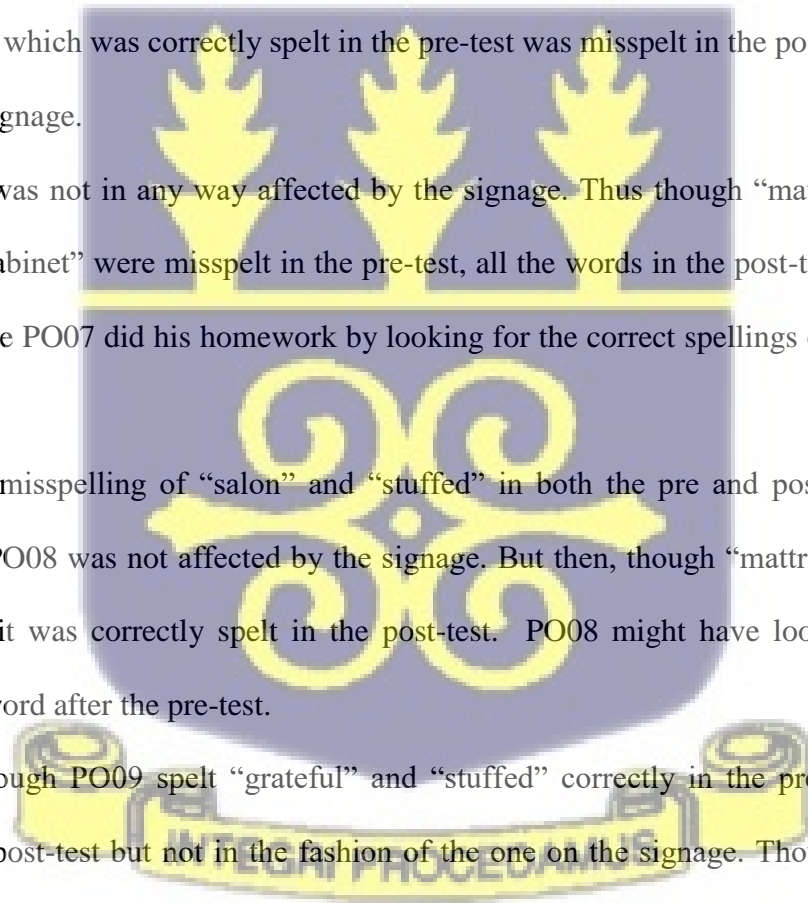
PO05 wrongly spelt “mattress”, “cabinet”, “stuffed”, and “dining” in the pre-test but spelt these words correctly in the post-test. This might mean PO05 took the trouble to look for the spellings of the words which were given in the pre-text after the test.

It is clear PO06 was directly affected by the spelling on the signage. Hence though “dining” and “salon” was well spelt in the pre-test it was misspelt in the post-test as in the style of the misspelling on the signage. With “cabinet” its misspelling was maintain in the pre-test and post-test. “Mattress” which was correctly spelt in the pre-test was misspelt in the post-test but not like the one on the signage.

PO07 it seems was not in any way affected by the signage. Thus though “mattress”, “writing”, “dining” and “cabinet” were misspelt in the pre-test, all the words in the post-test were correctly spelt. It could be PO07 did his homework by looking for the correct spellings of the words after the pre-test.

Looking at the misspelling of “salon” and “stuffed” in both the pre and post-test, it gave an indication that PO08 was not affected by the signage. But then, though “mattress” was misspelt in the pre-test, it was correctly spelt in the post-test. PO08 might have looked for the right spelling of the word after the pre-test.

Surprisingly, though PO09 spelt “grateful” and “stuffed” correctly in the pre-test, these were misspelt in the post-test but not in the fashion of the one on the signage. Though “dining” was misspelt in the pre-test, the learner might have researched after the pre-test to get the correct spelling in the post-test.



There is no evidence of the influence of the signage on PO10 hence though “mattress” was misspelt for both the pre-test and post-test, the misspelling did not change for both. “Dining” was misspelt in the pre-test but spelt correctly in the post-test. “Barbering” which was spelt correctly in the pre-test was wrongly spelt in the post-test but not like the misspelling on the signage they were exposed to. Could it be that the learner was not so sure of the spelling of “barbering” and thus after his exposure to the misspelling of “barbering” on the signage, he was influenced to just change the spelling and hence the misspelling.

The influence of the misspellings on the signage that PO11 was exposed to was evident from the results of the post-test of PO11. In the pre-test, with the exception of the word, “dining” PO11 spelt all the words correctly. It is clear PO11 did not know the spelling of ‘dining’ because the same style of misspelling for “dining was presented in the post-test. The misspelling of the word “mattress” in the post-test shows a direct influence of the signage he was exposed to as it was misspelt in the post-test in exactly the way it was done on the signage. With the misspellings of “salon” and “stuffed” in the post-test it was not misspelt as exactly the one on the signage hence it could be that the learner was confused about the correct spelling of these words after being exposed to the signage and thus never thought of spelling the words in the same way as it was spelt in the pre-test but rather in a different fashion. Thus, though a direct influence of the signage was not seen here it still may have had the effect of somehow confusing this learner.

For PO12, the misspelt words in the pre-test were “grateful”, “barbering” and “dining” but curiously enough, in the post-test all these words were correctly spelt though the learner had the exposure to the misspellings of those words on the signage. This learner might have taken the trouble to look for the correct spellings of all the words given in the pre-test before sitting for the

post-test hence all the words were correctly spelt in the post-test, leading to no influence of the signage on this learner.

The post-test of PO13 showed a direct influence of the signage on him. This is evident in PO13's misspelling of "salon" in the post-test. Though in the pre-test, "salon" was misspelt, its misspelling was not in the fashion of the one on the signage but after the exposure to the signage PO13 misspelt "salon" as exactly like how it has been misspelt on the signage. On the word "mattress" though PO13 misspelt it in the pre-test, after the exposure to the signage, this learner might have cross checked the spelling of "mattress" to have gotten the correct spelling of "mattress" in the post-test.

Except for the spelling of 'mattress' PO14 registered no influence of the signage he was exposed to as the learner was able to spell all the other words correctly. With the word "mattress", it was misspelt in both the pre and post-test in the same fashion.

The influence of the misspellings on the signage that the learners were exposed to after the pre-test was seen in the misspelling of "cabinet" by PO15 in the post-test as this word was correctly spelt by the learner in the pre-test. With the words, "mattress" and "salon" they were both misspelt in the same fashion in the pre-test and post-test. Hence for these, it indicated no influence of the signage on the learner. Curiously enough for PO15 though the word "dining" was wrongly, spelt in the pre-test, it was correctly spelt in the post-test. This may be due to the diligence done by the learner in checking for the correct spelling of "dining" after the pre-test.

For PO16, there is no evidence of the effect of the exposure to the misspellings on the signage on him/her. Thus, for his pre-test and post-tests, the words "mattress" and "cabinet" were misspelled in the same style. This might signal that either the learner was convinced he had the correct spellings of the words and thus was not influenced by the misspellings on the signage he

was exposed to or the learner did not look at the signage neither did he bother to check for the correct spellings of words he was tested on with after the pre-test.

Another learner that exhibited the influence of misspellings on the signage he was exposed to is PO17. Thus, though in the pre-test he correctly spelt all the words, in the post-test, he misspelt the word “mattress” exactly in the fashion of the misspelling on the signage he was exposed to. This might be because this learner may not have been very sure of the correct spelling of the word “mattress” and hence may have been influenced by the misspelling on the signage for this particular word.

PO19 showed no evidence of the effect of the exposure to the misspellings on the signage, hence though PO19 had the word “barbering” misspelt in the post-test (though it was correctly spelt in the pre-test) it was not misspelt in the fashion of the misspelling on the signage.

The effect of the misspellings on the signage the learners were exposed to was seen in the post-test of PO20. PO20 spelled all the words correctly in the pre-test but in the post-test the words “mattress”, “grateful” and “cabinet” were misspelt exactly in the style of the misspellings on the signage the learner was exposed to. Though the word “stuffed” was also misspelt in the post-test, its misspelling was not in the fashion of the misspelling on the signage. If such a good student (evident in the pre-test) could be affected by a signage, then the influence of the linguistic landscape on second language learners cannot be underplayed, Cenoz and Gorter (2008).

For PO21, the misspellings on the signage had no effect on him. Interestingly, though “dining” was misspelt in the pre-test, it was correctly spelt in the post-test even after exposure to the misspellings on the signage. Thus, this learner may be in the category of learners who might have checked on the spellings they were not sure of after the pre-test and thus was able to give the correct spelling of the word “dining” later in the post-test.

With PO23 the influence of the misspellings on the signage he was exposed to was seen in his misspelling of the word “barbering” in the post-test though it was correctly spelt in the pre-test. The word “mattress” was misspelt both in the pre-test and post-test in the name style, showing no effect of the misspelling on the signage the learner was exposed to. But then though the words “grateful”, “salon” and “dining” were misspelt in the pre-test, they were correctly spelt in the post-test. Hence, this was one learner who showed some evidence of the effect of the signage for some of the words, while for some of the words he may have cross-checked its spellings since he may not have been sure of the spellings of those words during the pre-test.

PO24 shows no evidence of the influence of the misspellings on the signage he was exposed to.

On the words “mattress” and “grateful”, PO25 exhibited evidence of an influence of the misspellings on the signage as those words were misspelt in his post-test as in the fashion of the misspelling on the signage, though PO25 spelt “mattress” and “grateful” correctly in the pre-test. With the words “barbering” and “dining” their misspellings were the same for PO25’s pre-test and post-test, showing no influence of the misspellings on the signage he was exposed to. But then, with “league” though it was misspelt in the pre-test, after the test, PO25 may have followed up to check on the correct spelling of that particular word since it was correctly spelt in the post-test.

PO26 showed no evidence of the influence of the signage he was exposed to. Thus, the word “barbering” was misspelt for both the pre-test and post-test. Though there were different misspellings for “barbering” in his pre-test and post-test but that of the post-test bore no likeness to the misspellings the learner was exposed to. For PO26, the words “mattress” and “grateful” which were misspelt in the pre-test were rather spelt correctly in the post-test.

Curiously enough, the post-test of PO29 did not exhibit any evidence of an exposure to misspellings. That is PO29 had all his words correctly spelt in the post-test though the words ‘grateful’, ‘cabinet’, ‘writing’, ‘corner’ and ‘dining’ were misspelt in his pre-test. In spite of his exposure to the misspellings on the signage PO26 might have taken the pains to check for the correct spellings of words he might have been given in the pre-test, to have been able to produce that post-test which had all the words spelt correctly.

An evidence of the effect of the signage is seen in the misspelling of the ‘mattress’ in the post-test of PO30 who correctly spelt that word in the pre-test. The misspelling of ‘mattress’ in the post-test of PO30 was exactly in the style of the misspelling on the signage the learner was exposed to for a period of time. Though ‘salon’ which was spelt correctly in the pre-test was misspelt in the post-test. Its misspelling in the post-test was not in the fashion of the one on the signage the learner was exposed to.

PO31 showed no evidence of any effect from the misspellings on the signage he was exposed to. All words with the exception of ‘corner’ were correctly spelt in his pre-test and post-test. On the misspelling of ‘corner’ in the post-test, the misspelling was not like the one on the signage, thus it cannot be said that he was directly influenced by the misspellings on the signage he was exposed to.

PO32 also did not exhibit any evidence of an influence of the misspellings on the signage he was exposed to in his spellings. Thus, the words ‘grateful’, ‘dining’ and ‘stuffed’ which were misspelt in the pre-test were correctly spelt in the post-test. There though PO32 spelt ‘barbering’ wrongly in the post-test (when he had correctly spelt it in the pre-test), the misspelling of the word in the post-test was not in the style of the misspelling on the signage.

PO33 had all the given words in the post-test correctly spelt even after exposure to the signage. The misspelling of 'grateful' was only in the pre-test thus signalling no effect of the misspellings on the signage on the spellings of PO33.

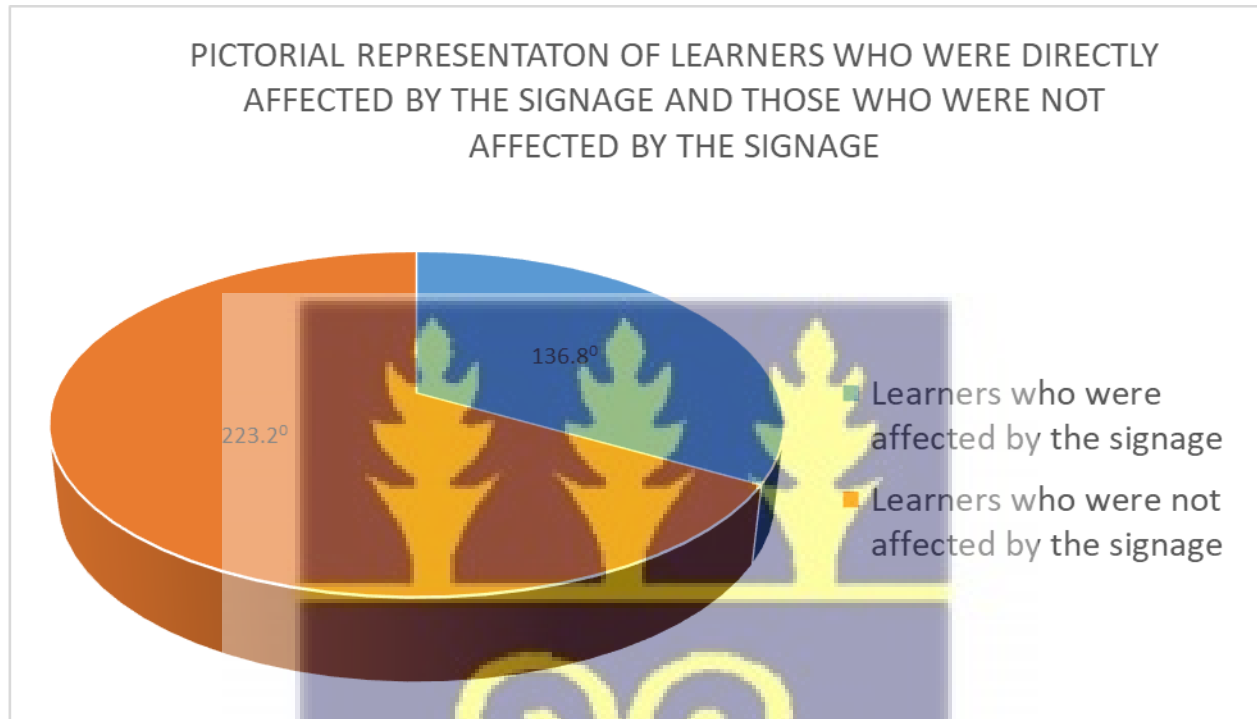
PO34 showed evidence of the influence of the linguistic landscape on second language learners of a language, with his misspelling of "salon" in the post-test (after he had correctly spelt it in the pre-test). The misspelling of "salon " was exactly after the fashion of the signage the learner was exposed to for a period of time. With the spelling of 'dining' he was not influenced by the misspelling of the word on the signage he was exposed to since he maintained the same misspelling for both the pre-test and post-test. Though the word 'mattress' was misspelt in the pre-test, it might be that he took the trouble to check the spelling of that word after the pre-test as 'mattress' was correctly spelt in his post-test.

For PO35, the misspellings on the signage he was exposed to after the pre-test had no effect on his spellings of the given words. Thus, disregarding the signage, the learner might have checked for the spellings of the words given in the pre-test after the test as almost all the words (except 'dining') which were misspelt in the pre-test were correctly spelt in the post-test. Thus, the words 'mattress', 'salon', 'cabinet' and 'stuffed' which were misspelled in the pre-test were correctly spelt in the post-test. 'Dining' was the only word that was misspelt in the same way for both the pre-test and post -test.

PO36 may either had felt very certain that his spellings of all the given words were correct or was not certain of his spelling but did not care to look up the spelling after the pre-test since he maintained the same misspelling for the word 'mattress' in both the pre-test and post-test. With the exception of that, all the other given words for both the pre-test and post-test were correctly spelt.

4.4 Results: Research Question 3: Can linguistic landscape (in Ghana) be used as a literary tool to teach English language spelling?

4.4(a) Presentation of Data on the Results of Research Question 3



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4.4(b) Discussion of Results of Research Question 3

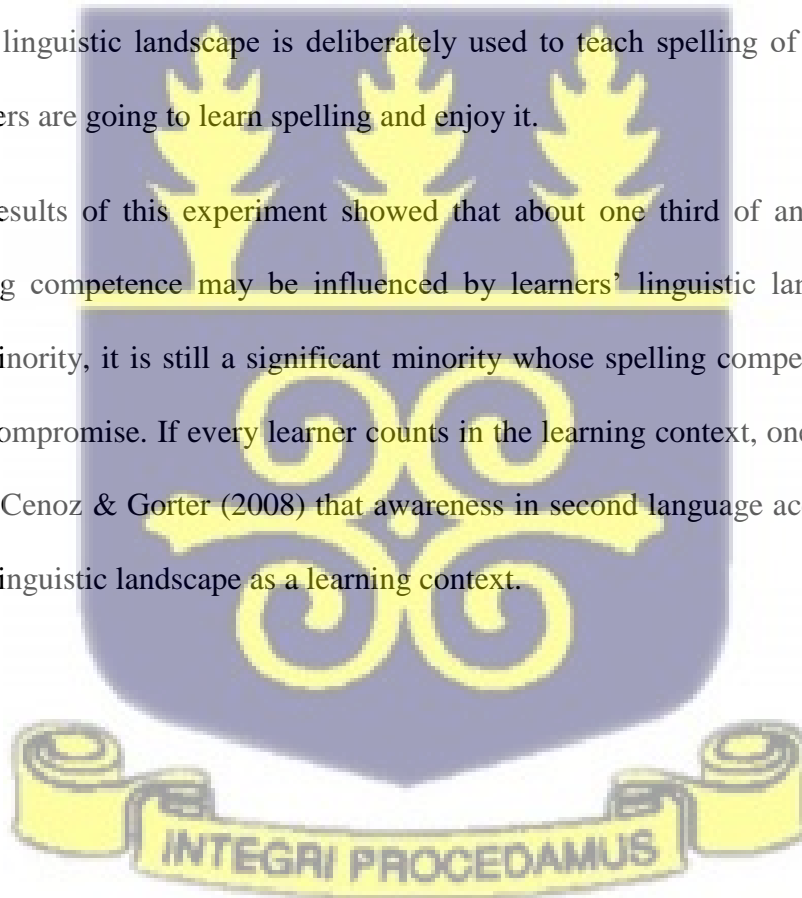
From the analysis, 19 students out of 50 students (representing) 38% of the learners were directly affected by the signage. Indeed, they were a minority who internalised some form of English Language spellings from the signage they were exposed to. It was surprising that in this minority group some learners who appeared to have some competence in spelling in the pre-test (by spelling all the words correctly), turned completely to misspell those very words as in the fashion of the ones on the signage in their post-test. Some examples of such learners are PE25,

PO13, PO20 and PO23 It was not much of a surprise when learners who misspelt their words in the pre-test were affected by the misspellings on the signage and wrote what they saw on the signage in their post-test because such learners did not show competent with spellings in the pre-test. The result that this experiment presented with only a minority of learners being directly affected by the misspellings on the signage reiterated what Hulstijn (2003) opined that real or actual incidental learning(as it happened in this experiment) does not result in high retention of a stimulus learnt.

Though other studies done such as Degenais et al (2009) resulted in a high response of learners to various stimulus learnt in their linguistic landscape, it should be noted that, they deliberately allowed their subjects to study their linguistic landscape while looking out for the specific details they were tasked to work on such as the various languages that had been used in their linguistic landscape. Unlike this research most of those studies (on the effect linguistic landscape on L2 learning) carried out that deliberately set the subjects to study their linguistic landscape brought out results that suggested that the linguistic landscape of learners could be a powerful tool in teaching various competence in L2 learning. The type of learning that occurred in this research was incidental learning, where the learner learnt without the intent to do so. Hence if incidental learning which that does not record high retention in learners was able to affect 38% of this research's subjects, then it could translate to mean that if educators drew the attention of learners to look out for spelling of words in their linguistic landscape, learners could certainly improve on their spelling competence; especially if their linguistic landscape is rid of misspelling. Even where there are misspellings in the linguistic landscape, if students are allowed to document their findings (in spellings) in their linguistic landscape and discuss with teachers, it would greatly improve on students' spelling competence.

In studies documented by Krashen (1989) there was improvement in the vocabulary of learners who actually read widely (that is, books and texts in their linguistic landscape). Though for some of those test, vocabulary was learnt through incidental learning, it was established that subjects were avid readers. That might be the reason why Ellis (2007) maintained that for retention of gains in incidental learning to be high, factors such as the frequency of occurrence of the stimulus, the importance of the stimulus and the existence or non-existence of a cue should be considered. Under the kind of incidental learning in this research, no wonder the minority of 38% whose pre-test or post-test showed they were not avid readers (and thus did not have competent spelling skills) had an influence from the misspellings on the signage. It is believed that if learners' linguistic landscape is deliberately used to teach spelling of words in English Language, learners are going to learn spelling and enjoy it.

Then also the results of this experiment showed that about one third of any given group of learners' spelling competence may be influenced by learners' linguistic landscape and even though it is a minority, it is still a significant minority whose spelling competence no educator would want to compromise. If every learner counts in the learning context, one could work with the assertion by Cenoz & Gorter (2008) that awareness in second language acquisition could be raised by using linguistic landscape as a learning context.



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

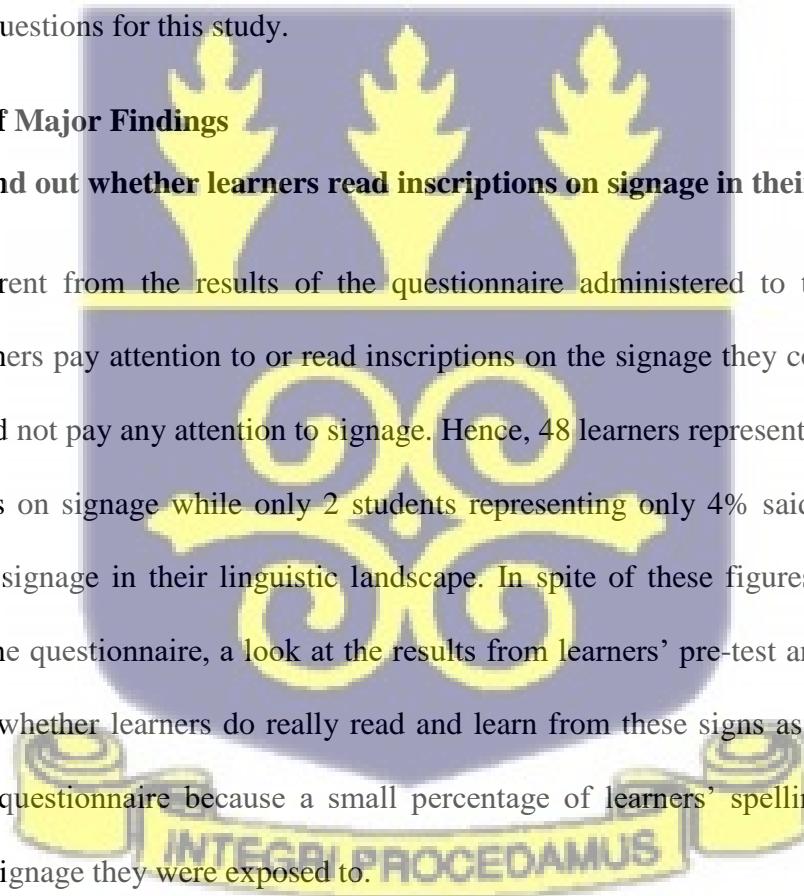
5.0 Introduction

This chapter presents the summary of findings, conclusions and recommendations for the study. The purpose of the study was to carry out an experiment to determine whether or not misspellings in the Linguistic Landscape of New Juaben Municipality could militate against the spelling competence of Senior High School learners of the English Language in that Municipality in the Eastern Region of Ghana and this was accomplished through finding answers to the research questions for this study.

5.1 Summary of Major Findings

Objective 1- Find out whether learners read inscriptions on signage in their linguistic landscape

It became apparent from the results of the questionnaire administered to the learners that majority of learners pay attention to or read inscriptions on the signage they come across. Just a few said they did not pay any attention to signage. Hence, 48 learners representing 96% said they read inscriptions on signage while only 2 students representing only 4% said they do not pay attention to the signage in their linguistic landscape. In spite of these figures from the results obtained from the questionnaire, a look at the results from learners' pre-test and post-test raised the question of whether learners do really read and learn from these signs as indicated in their answers to the questionnaire because a small percentage of learners' spellings were actually affected by the signage they were exposed to.



Objective 2- Ascertain whether or not misspellings in learners' linguistic landscape has a potential effect on their spelling competence in the English Language.

It was evident from the presentation and discussion of learners' pre-test and post-test that majority of learners did not pay heed to or internalise the misspellings on the signage they were exposed to and thus they either maintained their correct spellings of the given words for both the pre-test and post-test while others may or may not have paid heed to what was on the signage but went ahead to find out the correct spelling of words they were given for the pre-test and thus came up with correct spellings of words in the post-test. In that same majority group (who were not affected by the signage) there was also the group of learners who misspelt words for both the pre-test and post-test in different fashions. These learners were not consistent in their misspellings of the words in the pre-test and post-test. Since their misspellings in the post-test were not in the style of the misspellings on the signage, it could be that they were not sure of the correct spellings of the given words in their pre-test but never bothered to look up for the correct spellings of the given words after the pre-test. In addition to that, the misspellings on the signage may have gotten them more confused therefore they produced a different set of misspelt words for the post-test.

A minority of participants in this study were affected by their exposure to the signage. That minority group of learners were certainly not sure of some of their spellings in the pre-test hence were influenced by the misspellings on the signage they were exposed to (after the pre-test) and they ended up producing the spellings of the words exactly as presented on the signage. This indicated a weakness in their spelling competence as Senior High School students. Those learners captured in that group may not have been very sure of how correct their spellings were

in the pre-test and hence were swayed by the misspellings on the signage or it could be that they trusted that their linguistic landscape out in the open (for the public) could not be full of misspellings. It was clear then that those learners of the English language (for the study) had a problem with their spelling competence.

In learning a second language one's linguistic landscape may count in developing their spelling competence but a learner's linguistic landscape may not be a major determinant of one's spelling competence in an L2. But then because spelling in the English language in our Ghanaian context is a problem (as indicated in the Chief Examiners' Report for English Language, WASSCE 2018), there is the need for a linguistic landscape devoid of misspellings to give all the help in spelling that our learners need outside the classroom. That action is essential even if it is the minority of students who (already have poor spelling competence but) would read and unconsciously learn some spellings of words in their linguistic landscape.

Objective 3- Explore the possibility of using learners' linguistic landscape as a literacy in teaching English Language spellings

It was evidently clear that a majority of learners remained unaffected by the signage they were exposed to; linguistic landscape then may not be too much of a powerful literacy tool for teaching spelling always and thus other teaching strategies such as spelling drills may be employed in addition to that. That is to say though a minority of the participants' spelling (in the post-test) were affected due to their exposure to the signage, this does not totally write-off linguistic landscape as a powerful literacy tool for the teaching of English Language spelling because the number for the minority of learners who were affected were quite significant. It is the belief of the researcher that if learners were encouraged to study their linguistic landscape by paying attention to the spelling of words and are allowed to have a discussion of them with their

teachers, they certainly may find a more stress free and interesting way of learning spelling other than only the spelling drills they may be taken through in the classroom.

5.2 Conclusions

The study concluded that learners (of an L2) may pay attention to or read inscriptions on signage but may not retain what they have read because real learning in incidental learning does not result in high retention (Hulstijn, 2003). Majority of learners then may not actually read to internalise any comprehensible input from their linguistic landscape as espoused by Krashen (1985) and Krashen (1989). Nevertheless, signage can in no small way have an influence on learners' spellings. Even if the influence affects a minority it still counts for something. Signage then can be one of the tools (but not a very powerful tool) that can be employed by educators to teach learners spelling to make spelling sessions in school practical as well as interesting.

5.3 Recommendations

The following recommendations have been made based on the findings from the study:

- The various Municipal Assemblies could set up a task force that would ensure that all signs that would be put up in public space get edited by an editing committee set in the various Municipal Assemblies in the country so the public space would be appropriately constructed in terms of its language use.
- Educators can be tasked to encourage learners to develop an interest in their linguistic landscape and then they can be given an opportunity to document their findings which would be discussed with their teachers (in class) at a given time where teachers could take the opportunity to test spellings of learners based on some vocabularies the learners chanced on in their exploration.

- Educational planners could consider drawing up a program in the core English syllabus (for both Junior High and Senior High Schools) which would be set to use learner's linguistic landscape in their community to teach not only spelling but other aspects of the English Language.

5.4 Suggestion for Further Studies

This study has worked on the misspellings in our linguistic landscape and its possible relationship to the spelling competence of learners in selected Senior High Schools in the New Juaben Municipality. Further research on this could be carried out using selected Senior High Schools in each regional capital in Ghana to further widen the scope of this study.

5.5 Contributions of this Current Research to Knowledge

The aim of this research was to carry out an experiment to determine whether or not misspelling in our linguistic landscape (in Ghana) shapes the spellings of our learners of the English language. The study was able to bring out that learners read inscriptions on our signage but only a minority learn any spellings of English language words written on these signage.

It has been established that in any given community, some number of learners learn some of their spellings from their linguistic landscape if those words are slightly above their level or they are not familiar with it. In view of this, it has been recommended in this research that educators could think of employing learners' linguistic landscape in teaching spelling in addition to their normal spelling drills.

This research has therefore contributed to knowledge by drawing our attention to our growing linguistic landscape and how it can be shaped (by the authorities in charge) and utilised by our educational planners and educators in teaching English Language spellings.

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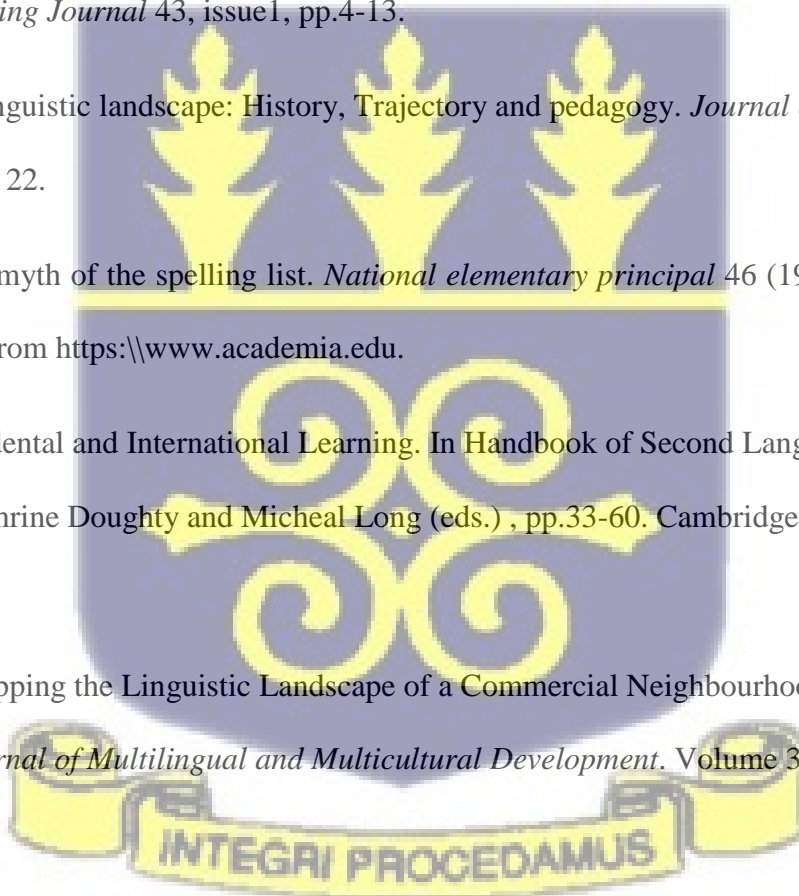
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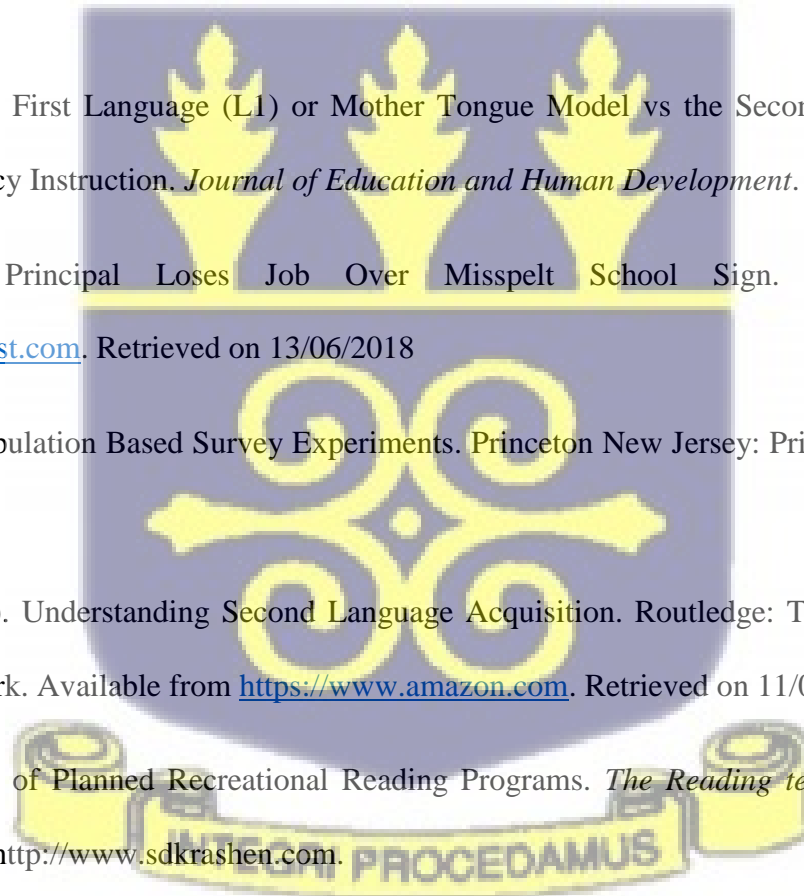
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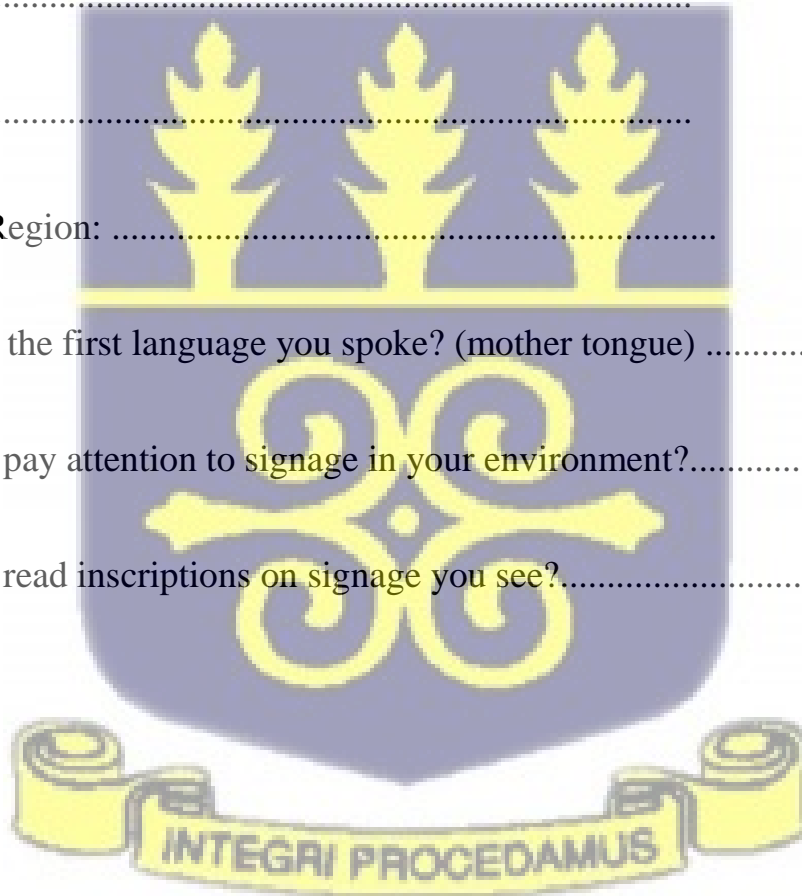
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APPENDIX 'A'

QUESTIONNAIRE ON STUDENTS' RESPONSE TO SIGNAGE THEY COME ACROSS

1. Class:
2. Age:
3. Home Region:
4. What is the first language you spoke? (mother tongue)
5. Do you pay attention to signage in your environment?.....
6. Do you read inscriptions on signage you see?.....

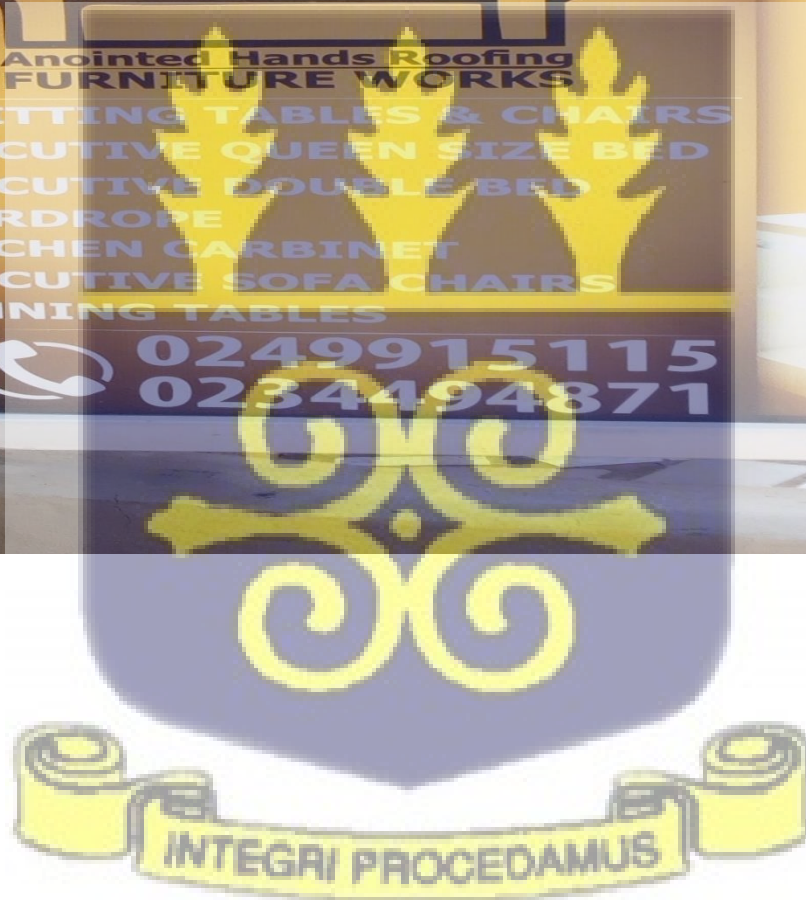


APPENDIX 'B'

PICTURES OF THE SIGNAGE WITH MISSPELLINGS







APPENDIX 'C'



UNIVERSITY OF GHANA
DEPARTMENT OF ENGLISH
SCHOOL OF LANGUAGES

DE/AC 13/2

Ref. No.:

May 24, 2019.

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**TO WHOM IT MAY CONCERN
LETTER OF INTRODUCTION**

Ms. Bertha Duah is a second year MPhil student in the Department of English, University of Ghana. She is writing her thesis on the topic: "Misspellings on Signage in Ghana: Are Learners of the English Language Safe?".

I would be grateful if she could be given the assistance she needs to collect data for her thesis.

Yours faithfully,


Dr. Jemima Asabea Anderson
HEAD OF DEPARTMENT

INTEGRI PROCEDAMUS