Acquisition of Morphological Competence in Spelling as a Developmental Process

By

Ifeyinwa Florence Ofoegbu
2009027002P

Department of English Language and Literature
Faculty of Arts
Nnamdi Azikiwe University,Awka

A Dissertation Presented to the Department of English Language and Literature in Partial Fulfilment of the Award of PhD in English Language

Approval Page

This Dissertation has been Approved for the Department of English Language and Literature,Nnamdi Azikiwe University,Awka

By

Prof.D.M.Nduka Supervisor	…… Signature and Date
Dr. Ndubisi Osuagwu Head of Department	…….. Signature and Date
Rev. Fr.Prof. B.A.C. Obiefuna Dean of Faculty	…….……. Signature and Date
Prof . Ike Odimegwu Dean of P G School	…… Signature and Date
Prof. Sam Onuigbo External Examiner	…… Signature and Date

Certification

This is to certify that I am responsible for the work submitted in this thesis, that the original work is mine except as specified in the works cited.

……

Ifeyinwa Florence Ofoegbu

February,2016

Dedication

This work is dedicated to my wonderful parents especially, my late mother for their immense support since the beginning of this programme.

Acknowledgements

My profound gratitude goes to the Almighty God, the Giver of life for the tremendous support He gave me in the course of this study. I am grateful to my supervisor, Prof. D.M.Nduka whose advice , corrections and guidance facilitated the completion of this work .May the good Lord bless him. My gratitude goes to the Head of English and Literature Department,Prof.Stella Ekpe for her corrections and guidance.

I am grateful to all my lecturers in the department of English language and Literature, especially Dr Chinwe Ezeifeka and Dr Jane Ifechelobi for guiding me in the organisation of this work.I say thank you to Prof. D. Ekpunobi and Dr. Ifeyinwa Ogbazi whose words of encouragement spurred me on. Thank you very much Mr Ofordi for finding time to proofread my synopsis.

I am indebted to my loving parents and my children, Chukwuemeka,Tobenna and Oluoma whose distractions brought me some relief and gave me the strength to go ahead and each time.

My sincere gratitude goes to Mrs. Vivian Chukwueto who brought my baby home from school each time I was in university for one thing or the other. To Mr Prosper Chukwumezie, I say thank you for your wonderful assistance in handling the statistical aspect of this work.

Finally, to Mr.Okey Ifeduba and Mr. Innocent Nwabueze, I also say thank you for your financial support.

Abstract

It is commonly believed that learning to spell English words demands an understanding of the relationship between sounds and letters and a memory for those words or parts of words that lack consistency in their spellings. The English orthography is richly morphophonemic yet the role morphology plays in learning to spell is not well understood. Besides, there have been very few investigations in this area. In order that learners may be able to spell, with ease, polymorphemic words used in writing, detailed knowledge of morphemic structure of words should be acquired. Some theories which are relevant to this study were also reviewed. They include the dual mechanism theory. This study seeks to investigate the developmental nature of acquisition of morphological competence which is a gradual process from childhood to adulthood. In doing this, different forms of tests on knowledge of inflectional and derivational morphemes, morpheme segmentation and identification parts of speech of words and knowledge of word families were administered to participants made up of pupils from two primary schools: one from an urban area and the other from a rural area and students from three secondary schools: one from an urban area and two which are a single sex school and a mixed school from rural areas. Pupils and students were used to enable the researcher observe the developmental trend of acquisition of morphological competence in spelling which according to theorists lasts beyond puberty. It was found out that inflectional morphemes were acquired at a faster pace than derivational morphemes for some reasons. Again, language users employed their knowledge of morphology more in speech than in writing. It was also found out that environment plays a role in the acquisition of the inflectional and derivational morphemes. It was concluded that detailed knowledge of how morphology works helps second language users attain proficiency in spelling and improve their writing.

TABLE OF CONTENTS

Chapter One

Introduction

1.1 Background to the Study

Spelling is an important aspect of literacy acquisition. Its mastery includes the application of some linguistic skills which include morphological skill. Most of the time, it appears as though only phonological and orthographic skills are necessary for proficiency in spelling. The role of morphology in learning to spell is not clearly understood. The English language has a wealth of morphology; by this, the researcher means that many words in English have internal structures which appear vague to users because they lack knowledge of what relationship exists between words. As such, the English spelling appears to be full of inconsistencies. This internal structure is the key object of discussion in this study. Children use words in making speeches; often, they understand the communicative import of what they say but there is nothing in their ability to do these which shows that they have knowledge of the constituents of certain words they produce in their speech.

English derivational and inflectional morphology have engaged the attention of researchers in linguistics, psychology and reading over the years. Findings from these studies show that knowledge of morphology may be very important in several ways: knowledge of the internal structure of words may play a role in lexical access (Leech,Rayson &Wilson 287). Because derivational suffixes mark words for part of speech, they may be useful in helping speakers establish the syntactic structure of sentences (Carlisle 122). In addition, knowledge of morphology appears to be helpful in assigning meaning to unfamiliar derivatives. As such, it facilitates vocabulary growth (Connor et al 102).

Despite the attention given to morphology, we have only fragmentary and inconsistent information about its acquisition. Previous research works on acquisition of morphological competence did not clearly identify when children acquire knowledge of the internal structure of words, just what knowledge they acquire or how well they are able to utilize such knowledge. This paper aims at establishing a fuller picture of users' acquisition of English derivational and inflectional morphology by distinguishing different aspects of knowledge about morphology and examining their different degrees of ability to use their implicit knowledge in doing some morphological tasks. Children's misspellings during dictation exercises reveal absolute lack of understanding of morphemes that make up words.

This paper will show what morphological knowledge the participants have at a given stage. It was found out in reading research that as students move beyond primary school reading materials, the words they encounter in reading get longer and demands of vocabulary increase; such changes make understanding more challenging (Carlisle 204). Vocabulary knowledge is not a simple exercise. To know a word well, one must not only know the meaning of the word but also its relationship to other words, including other morphological forms of the words (Hiebert & Kamil 133). Readers use morphology of known words to unlock the meaning of unfamiliar polymorphemic words while reading and thus, expand their vocabulary and understanding of texts (Meara & Jones 65). Morphemes, the smallest units of meaning are the key elements in the reading process. Morphological awareness, essentially a user's understanding that words are made up of meaningful units, is exercised when the user takes a complex word apart to make sense of it and to uncover the relationship between the word and others.

Nagy, Berninger and Abbott explained that within the English language, over half of the words are morphologically complex and are more common in written language than in speech (136).When similarity in meaning is absent, the realization that base and derivational forms are related requires more linguistic sophistication than many individuals have.

It is a widely accepted fact that the lexicon is the most important element in language processing. Without the knowledge of words, no language can be intelligible. Morphology can be seen as an important component of the lexicon and morphological information about words is an essential information on the word structure. The role of morphology in learning to spell is related to the degree of morphological wealth in the language system and to its prominence in the orthography (Carlisle and Stone 428). In other words, developing spelling perception is mediated by typological traits of the language being learned. Morphology has been used to improve users' literacy skills by providing both teachers and students with the understanding of the principles governing spelling and reading. Morphology works by showing how words can be divided into roots and stems which contribute to the meaning and spelling of the words (Tomasello 122). There are many psycholinguistic issues brought to light by the facts about morphology. However, the central one has focused on decomposition; whether and how language users including readers decompose morphologically complex words into their constituent morphemes. Learning to read and spell begins with knowledge of sounds and their spellings and concludes with the study of morphemes. Understanding the morphological implications of the English language has benefits that go beyond good spelling. For young users, spelling supports learning to read and for older users it brings about vocabulary growth and reading with understanding.

1.2 Statement of the Problem

Vemeer concluded that errors of spelling rank first among the different types of grammatical and lexical errors identified in the language performance of users who study English as a second language (72). A growing body of literature has provided evidence of the contributions of various metalinguistic skills to users' literacy development. However, most of these studies focused on reading while writing has remained under-researched. Morphological skill plays the major role among all the various linguistic skills needed for spelling proficiency but this role is not well understood by users. The question the researcher sets out to answer in this paper is how do users acquire morphological competence and at what stage of learning do they acquire knowledge of the use of a given morphological skill? Another question this paper seeks to address is between competence in the use of derivational and inflectional morphological skill, which is acquired first or is the acquisition a simultaneous exercise? When is the peak of acquisition and does it fossilize?

It is needful to find out how these are done because spelling is an important aspect of literacy acquisition and from the time a child starts schooling, he or she gets involved in writing. Learning to spell in an alphabetic orthography involves learning the different letters that spell a phoneme. This is because in the English language, a phoneme could have more than one spelling. How users learn to spell more complex words on the basis of their constituent parts is yet to be established. Although users understand speech and recognize words, there is nothing in that ability that makes known the composition of their speech in terms of morphological constituents. Some morphological awareness is required for users to be successful in spelling.

1.3 Purpose of the Study

Learning of derivational morphology is a complex matter. The affixes allow us to express a concept in a number of different grammatical forms usually while retaining the basic identity of the base form. Having familiar morphemes in many different words offers ease and efficiency in conveying meaning; this benefit accrues only if we are able to appreciate the morphological relationship between different words in word families. Most importantly, this study promises to find out, through a cross-sectional study of primary school pupils and secondary school students, the developmental pattern of acquisition of morphological items that affect the learning of spelling rules. It may also support or disprove the claim that acquisition of morphological competence in spelling continues after puberty. Again, is there a regular pattern of acquisition as the user progresses? Certainly, there is no point at which acquisition ceases completely, that is, the Language Acquisition Device does not stop taking in comprehensible input. It is a step in the examination of morphological knowledge in spoken language of children as it relates to their ability to represent morphemes in writing and analyze the morphemic structure of words. As users encounter more polymorphemic words in their spellings, their misspellings tend to reflect processes of derivational morphology and reveal a conceptual readiness to explore how spellings preserve semantic relationships across derivationally related words. On account of this, it is certain that knowledge of morphemic structure of words is necessary for attainment of proficiency in spelling.

Scope of the Study

This dissertation is intended to indicate the developmental trends, if any, in the mastery of the derivational morphology, spelling of derivational words and inflectional morphology. At this point, it is necessary to define the extent to which the researcher would go in carrying out this research. The researcher would examine a cross-section of subjects made up of primaries one to six pupils of God's Wisdom International School, Nnewi and those of Uhuobo Community Central School, Okija as well as JS3 and SS3 students of Immaculata Girls' Model Secondary School, Nnewi, those of Seat of Wisdom Secondary School, Ozubulu and Community Secondary School, Ihembosi. The rationale behind the use of primary and secondary schools which are also in different localities is that the researcher wishes to observe the developmental trend of acquisition of morphological competence which according to theorists continues beyond puberty. Besides, the researcher also wants to find out what influence an environment can have on acquisition process of morphemes. Though the particicipants in the selected secondary schools did not finish from the selected primary schools, they covered the same scheme of work designed by the state education commission. It is also for this reason of uniformity in the scheme that all pupils and students in private and public schools in the state write same external examinations. The difference lies in methodology.

1.5 Significance of the Study

Writing provides us with a method of communicating with others using letters of the alphabet. It is a tool for learning that allows us to document, collect, acknowledge and circulate detailed information. According to Ehri, purposeful writing experiences are the key to cognitive growth in spelling (227). Clear understanding of the relationships that exist between words would go a long way in making spelling tasks much less difficult. It enhances the ability to write error-free texts. Teaching and learning of spelling take place within the context of writing. Children get to understand that morphemes could be categorized in different ways. Comprehending informational texts is particularly important for academic achievements where academic vocabulary is the key to understanding the content given the number and variety of new words. A student must learn to comprehend a text on unfamiliar topics. Knowing how to use morphology of words is an essential skill.

This dissertation has some educational relevance because it has the potential to direct the attention of teachers, language users, policy makers and education planners to the relationship between orthography and meaning. This would help them in reading and spelling derivationally complex words because they will get to recognize many obscure phonological relations that exist between words like 'crux' and 'crucial' which belong to the same word family. Indeed, users' morphological awareness makes a significant contribution to their spelling ability because they can analyse words into their constituent parts. This is evident as they progress in their educational career.

1.6 Research Questions

1. At what level of acquisition of inflectional morphological competence is each of the different groups of participants?
2. What is the developmental pattern of acquisition of selected morphological items from primary one to primary six?
3. How does this developmental pattern differ from or correspond with those of JS3 and SS3 students?
4. To what degree is morphological knowledge important for spelling proficiency?
5. What implications do these findings have for the learning of these morphological items?

Chapter Two

Review of Relevant Literature

2.1 Conceptual Framework

Learning to read and write is a significant component of the education children receive in Nigerian schools. A critical factor in such literacy acquisition is spelling skill. Research has shown that skills acquired from spelling instruction improve reading abilities (Bear et al 321). This is most likely because learning to spell transforms how children think about the sounds in their language (Singson,Mahony & Mann 212s). In other words, children must recognize how the sounds and letters in words are related and this is not always an easy task. Regularities in letter to sound correspondences support accurate English spelling for almost 50% percent of English words (Moat 289); nevertheless, in reality, English spelling is morphophonemic. Meaning relationships are often represented through spellings despite changes that may occur in pronunciation or orthography, for example, 'sign' and 'signal', 'nature' and 'natural' (Bourassa &Treiman 179). Therefore, spelling not only requires phonological and orthographic knowledge but also morphological knowledge (Carlisle 472). This knowledge, subsequently, provides a deeper understanding of relationships between oral and written language forms and functions (Carlisle 480).

The inflectional morphemes are bound morphemes that indicate the grammatical function of a word. They assign linguistic elements into paradigms that determine number, tense, aspect, case and comparison. Those that belong to noun paradigm mark words for plural forms like 'boy-boys' and for genitive case as in 'boy's'. Those that belong to the verb paradigm mark words for present tense forms like 'eats', continuous

tense forms like ‘eating’, past tense forms like ‘ate’ and past participle forms like ‘eaten’. Those that belong to adjective paradigms mark words for comparison; for example, ‘-er’ mark words for comparative forms like ‘bigger’ or ‘later’. Inflectional morphemes are all suffixes that produce new forms of the same lexeme. Because they do not bring about any change to the class of words they are attached , we say they are class-maintaining suffixes. Again, any word to which they are attached cannot be expanded further. The inflectional morphemes are a close set; just eight in number. Inflectional morphology can be divided into three major groups namely:

1. Noun inflections:

For plurality - day / days ; goose - geese

For possession - Uche’s house; Oxen’s tail;

2. Verb inflections.

For subject - verb concord. ‘He eats regularly.’

For present participle - ‘She is clapping.’

For past tense - ‘obey’ - ‘obeyed’; ‘stand’ - ‘stood’

For past participle-‘eat’ / ‘eaten’ , ‘go’ / ‘gone’ , ‘maim’ – ‘maimed’

3. Adjectival inflections.

‘-er’(for comparative) ‘big’ – ‘bigger’

‘-est’ (for superlative) ‘largest’ , ‘biggest.’

Derivational morphemes produce new lexemes. They constitute the open class and could be class-maintaining or class-changing affixes. In the English language, derivational words are typically formed by adding an affix to the beginning (prefix) or end (suffix) of a base. For example, if the derivational affix ‘-able’ is added to the base ‘desire’ which is a verb meaning ‘to want’, the derivational word ‘desirable’ is

formed. The word ‘desirable’ can further be modified by adding the prefix ‘un-’ to derive ‘undesirable’, an adjective meaning ‘not wanted’. It should be noted that changes in grammatical categories and meaning are often used to differentiate the derivational morpheme from an inflectional morpheme. In the example given above, both the prefix ‘un-’ and the suffix ‘-able’ change the meaning of the base of the word. Additionally, the suffix ‘-able’ changes the grammatical class of the base from a verb to an adjective. In more formal terms, inflection is distinguished from derivation using the following criteria:

(a) Change in lexical meaning or parts of speech

(b) Syntactic determination

(c) Productivity

(d) Semantic regularity

(e) Closure (Stump 33)

Root

This is the core of the word, the nuclei from where words derive their central meanings. According to Echols & Marti, it is that part of the word form which is left when all inflectional and derivational affixes have been removed (44). An example is ‘touch’ in ‘retouch’, ‘untouchable’, ‘untouchables’.

Stem

This is a word to which inflectional suffixes are structurally added. There are simple, compound and complex stem. Examples of a simple stem are ‘boys’ and ‘girls’. Those of a compound stem are ‘blackboard’ and ‘cottonbud’ while those of a complex stem are ‘naturalizations and verifications’.

Base

This is a root or stem to which any affix could be structurally attached. Examples are ‘natural’, ‘naturalize’, and ‘naturalization’.

Expected Morphological Competence of the Second Language User

Morphology is the study of the internal structure of words. Building blocks of words are either bound or free morphemes. A free morpheme is a morpheme that is a complete word and can stand on its own. Examples of free morphemes are hose (N), fair (Adj), and walk (V). Bound morphemes are morphemes that need to be attached to a word and cannot stand alone. They are also known as affixes. Examples of bound morphemes are ‘-ed’ in ‘walked’, ‘-ly’ in ‘slowly’ and ‘im-’ in ‘impossible’. Both free and bound morphemes are stored in the mental lexicon along with rules of how they can be combined. Especially in the case of affixes, there are certain rules that determine where they can be attached and what they can be attached to. Affixes can generally be subdivided into prefixes and suffixes. Prefixes are attached at the beginning of a word while suffixes are attached at the end of a word.

Below are examples:

Prefixation suffixation

‘im-’ + ‘possible’ (Adj) = ‘impossible’; ‘big’ (Adj) + ‘-est’ = ‘biggest’ (Adj)

‘Dis’- + ‘connect’ (V) = ‘disconnect’; ‘impair’ (V) + ‘-ment’ = ‘impairment’ (N)

Suffixes can be divided into two categories: inflectional and derivational suffixes. The boundary between the two is not always clear but roughly speaking, inflectional suffixes do not change word category, for example, nouns remain nouns and verbs remain verbs, whereas derivational affixes do, for example verbs become adjectives.

Inflection	derivation
House (N)+ -s = houses	eat (V) + - able = eatable (Adj)
Cook (V) + -ed = cooked	blunt (Adj) + -ness = bluntness (N)

Looking at the stress patterns of morphologically complex words in English, it becomes apparent that in some cases, the stress pattern of a word changes when an affix is attached to its root and in some cases it does not. In the English language, the assignment of stress to a certain syllable in a word has been shown in literature to be heavily slanted towards the right hand side of a word (Burzio 92). Based on this, derivational suffixes are generally divided into stress-sensitive and stress-neutral suffixes, that is, suffixes that affect the stress pattern and those that do not.

Stress-sensitive	stress-neutral
-ation	-able
- ual	-ry
-ese	-less
-esque	-ly
-ian	-ish
-ic	-ness
-ician	-y
-ity	-ant
-ious	-ance
-ial	-ive

(Calderon et al 187)

If, for example, the suffix ‘-ity’ is added to the word ‘captive’, the main stress shifts to the final stem position ‘captivity’. If the suffix ‘-ness’ is added to the word ‘serious’, the main

stress stays in the same position ‘seriousness’. A few suffixes can be placed in the category of mixed suffixes, meaning that in some cases the suffix is stress-sensitive and in other cases it is stress-neutral. A good example is the suffix ‘-al’.

According to Tsesmeli and Seymour, most studies in the field of the acquisition of L_2 morphology, however, tend to be focused on inflectional morphology and it seems that very little work has been done on derivational morphology, even though it causes L_2 learners some difficulties. Certain affixes can, for example, be attached only to words belonging to particular parts of speech and some affixes change the syntactic category of a word while others do not. The rules of a derivation could apply to all members of a word class but not every derivational word that can be formed according to these rules necessarily occurs in the language. This means that there are constraints on word formation that second language users will have to learn (228).

According to Jarmulowicz, a description of the learning tasks is as follows:

Learning suffixes must minimally entail:

a. Isolating the suffix
b. Learning the meaning of the suffix
c. Determining the syntactic constraints of the suffix, that is, what lexical category the suffix marks and to which lexical category the suffix can attach (295).

According to Friedline, morphological knowledge implies that a speaker knows something about the form, meaning and usage of a set of inflectional and, or derivational affixes in a given language (13).

Within the field of second language, not a lot has been written concerning English as a second language users’ morphological competence.

Based on the discussion by Tyler and Nagy, Ladiere has classified the various aspects of knowledge of derivational morphology into three types and they are relational, syntactic and distributive knowledge.

Relational Knowledge:

This is the knowledge that two words are morphologically related to each other, that is, they share a common lexical base.

Syntactic Knowledge:

This is the knowledge that derivational suffixes mark words for syntactic category in English. Even if one does not know the lexical stem of a word, the derivational suffix can often provide highly reliable information about its syntactic category.

Distributive Knowledge

This is knowledge of the constraints on and possibilities of the attachment of morphemes to root words. Simply put, it is all about what morphemes can be attached to what words to either change their meanings or retain them? Users also need to know the restrictions on which specific affix(es) to use in the derivation of a particular syntactic category given the morphological characteristics of the stem and or the intended function (173).

Studies conducted in the area of acquisition among native English speaking children suggest that these types of morphological knowledge develop at different rates. Research by Tyler and Nagy showed that by the third or fourth grade, children had acquired some relational knowledge while their syntactic and distributive knowledge of derivational morphology increased gradually through the 8^{th} grade (Tyler and Nagy 638).

Apart from processing differences between knowledge of derivational morphology, there might also be processing differences between knowledge of inflectional and derivational morphology. Inflection and derivation are processed differently in the brain. As such, it could be concluded that the rates of development of the different types of knowledge of derivational morphology differ and some types of knowledge develop at an earlier stage in L_1 users than in others. Apart from this processing difference, there might also be a processing difference between inflectional and derivational knowledge. As a matter of fact, if these processing differences are found in native speakers as they acquire their L_1, they are likely to be found also in users of L_2 morphology.

Hiebert and Kamil, in explaining how L_2 lexical representations are acquired proposed three stages of lexical development:

Formal stage

Lemma mediation stage

L_2 integration stage

It is explained that in the first stage, morphological, syntactic and semantic knowledge of an L_2 lexical entry are not yet stored in the mental lexicon but only the orthographic and phonological knowledge of the L_2 lexical entry are stored. L_2 users tend to associate an L_2 lexical entry with the L_1 translation of that entry which becomes activated. If this association between L_1 and L_2 lexical entries continues to be activated, the L_1 lemma will transfer into the L_2 lemma space in the second stage. Syntactic knowledge of the L_2 lexical entry will be added to the L_2 lexicon as well as the L_1 syntactic and semantic specifications associated with the L_2 lexical entry. Because morphological knowledge is very language-specific, this knowledge tends not to transfer from L_1 to L_2 at this

stage. In the third and final stage, semantic, syntactic and morphological information are added to the L_2 lexical entry (122-4).

They suggest that L_2 users may be unable to realize his or her errors at the second stage of the model explained above. This may mean that L_2 users might never get to the stage where morphological knowledge gets added to the L_2 lexicon. This does not mean that L_2 users will not have access to explicit morphological knowledge (126).He suggests that L_2 users will have access to explicit morphological knowledge but the degree to which they can apply this knowledge depends on processing resources that are available. They further explained that L_2 lexical entries often consist of a kind of default or base form; this means that its inflected variants are not included. Because affixes are not included in the lexical entry of a word, L_2 users tend to include morphological rules for the lexical entries. The rules can be acquired by formal instruction but will never be processed in their system in the same way as they are in the native system (129). Because L_1 and L_2 morphological knowledge are differently processed, derivational morphology will continue to cause difficulty for L_2 users of English at all levels.

Researchers have shown that the speed of acquiring inflectional morphology differs from that of derivational morphology and also depends on the part of speech. In some cases, the acquisition of morphology of concrete nouns develops faster than the morphology of verbs. A possible reason is that in the case of nouns, the child has to acquire a smaller number of morphological categories than in the case of verbs. Another important factor is that verb morphology could be acquired differently from noun morphology. It is easier to acquire concrete nouns cognitively because of their correspondence to the signified object (August &Shanahan 81). However, verbs,

especially highly frequent verbs are semantically more complex and more related to the syntactic structure of the language. Therefore, syntactic factors play a more important role in the acquisition of verbs than in that of nouns (Carlisle 286). Thus, verbs are more important from the point of view of grammar and they enable more grammatical relations between nouns (Wray 198). One might think that the transparency of forms could exert some influence on earlier acquisition of the inflectional morphology of the verb. Thus, children might find it easier to acquire agglutinative verb forms than noun forms that are more fusional.

Again, the linguistic environment of the child has impacts on the acquisition of inflectional morphology and they are manifested in a number of ways. The most significant is that it affects that acquisition order of morphemes. Some forms are more significant for communicative functions than the others and are acquired earlier.
Descriptive linguistics has made several efforts to utilize a scientific means to account for the least details of language behaviour in the areas of phonology, syntax and morphology. Conclusions reached gave rise to doubts and questions about the basic principles upon which the discipline had been found. As such, English morphemic analyses are characterized by problems and inconsistencies which confront users of English as a second language (Pacheco &Goodwin 217).

According to Chliounaki and Bryant, the problems are categorized as those of meaning, segmentation and morphophonemics, that is, the relationship between morphology and phonology (167). In terms of meaning, he argued that some units referred to as meaningful are only so within the grammatical structure in which they are used, otherwise, they are meaningless. The criterion of meaning employed in the

definition is insufficient. The principles of phonetic shape, for example, raise questions about certain morphemes which phonetic shapes are dissimilar but which are not in contrastive distribution and also about homonymous words. He gave examples with words like cats, roses and dogs- /kəets /, / rəuziz / and /dɔgz /. The point being made here is that each of them contains the plural morpheme '-s' but bears a different shape. Another example he cited is the comparative degree marker '-er' and its allomorph 'more'. Concerning homonymous words, he pointed out that the '-er' in 'singer' s(agent), 'hammer'(instrument) and 'sister'(kinship) have nothing to do with comparison. This poses a problem to the user in the course of morphological analyses. Morpheme segmentation is problematic but Clark proffered steps one could take in the exercise (111).

The problem of morphology discusses mainly allomorphs and alternates. While '-s' plural marker is said to be phonologically conditioned, the ''s' possessive marker could be said to be morphologically conditioned.

He concluded by saying that morphological analyses may not have reached a level of perfection but it has given clues which could guide the learner in understanding the structure of languages (Chliounaki & Bryant 179).

According to Akmajian et al., problems in isolating the base of a complex word include productivity, false analyses and bound base morphemes. The claim that the suffix '-able', for example, is attached only to transitive verbs could be contested because English has a small number of nouns that occur with the same suffix '-able'. As such, we say that the attachment of '-able' to transitive verbs is productive because it happens freely but its attachment to nouns is not because such nouns are fixed(46). Another problem one may encounter is in the course of analyses. Basically, the suffix '-able' means 'to be able'. Again, the '-able' suffix can itself take on the suffix '-ity'

to form a noun as in ‘readable’ -‘readability’ but this is not so with ‘sizeable’ and ‘hospitable’. ‘Sizeability’ and ‘hospitability’ are not possible English words. In other words, it is difficult or false to say that ‘sizeable’ and ‘hospitable’ contain the productive suffix ‘-able’. They merely accidentally take on the suffix (47). There are other words that take on the ‘-able’ yet their bases are not free morphemes. These are bound base morphemes. Examples of such words are ‘malleable’ and ‘feasible’ (48). ‘Malle and Feas’ do not exist in the English lexicon. So, in the course of analyses, care should be exercised in order not to do it wrongly.

Acquisition, Learning and Critical Stages

Morphological development is divided into three periods according to most constructivist studies. During the first period known as the pre-morphological period, the grammatical modules have not developed yet and the acquisition of morphology is governed by general cognitive principles. During this period, the acquisition of morphology usually means the memorizing of word forms as unanalyzed wholes. The acquisition of the morphological system however, begins only during the proto morphological periods. At this time, users begin to establish analogical associations and even the first rules. This period reveals the largest number of over-generalizations and individual differences in the course of acquisition (Haspelmath 314).During this period, the number of unanalyzed units which prevail during the initial acquisition period show a gradual decrease.

The beginning of the proto-morphological period has also been defined since the occurrence of the first mini paradigms. The first mini paradigm consists of at least three inflectional forms of the same lexeme that occur in the language data of the child during the one month period in a different context which the child has used

spontaneously and the forms must be phonologically recognizable(Dressler 122). The proto-morphological period ends when the subsystems of inflectional morphology and derivation start to develop. In other words, different modules of the linguistic system begin to interact (Dressler 123).Researchers claim that the proto-morphological period ends and the period of morphology proper begins.

If this discussion is extended to language acquisition, a major question that would arise is how does the user acquire roots and morphological rules or morphologically complex words – as wholes? Considering the large amount of irregularities in the lexicon, one may wonder how users manage to acquire the mechanisms to form new words. In a purely rule-based system, those that are exceptions and ambiguous are likely to frustrate a learner's hypotheses (Rubin,Patterson & Kantor s188). For the comprehension of morphologically complex words, for example, the lack of transparency of many lexical items may confuse the user; a drawer is not always a person who draws and a drawing room is not necessarily a room in which one draws. A complex mechanism is usually required for reorganizing storage in a situation where a derivational form is acquired before its base. However, a pure storage position is not adequate either as all adult speakers of a language are able to apply morphological regularity in their formation of new words on the basis of existing familiar words. As such, a compromise position will account for the acquisition of regular word formation devices while at the same time allowing the occurrence of idiosyncrasies.

Young children use morphology on a large scale to expand their vocabulary yet most children have not acquired full knowledge of it at puberty (Nation 99). Children tend to regularize their language. They create new coinages which are regular and transparent. Transparency of meaning and simplicity of forms, together with productivity can make

accurate predictions about the acquisitions of word formation devices across languages (Keifer & Lexaus 140). Transparency is perhaps the most important principle that guides the child's innovations. Children's most favourite word formation device, compounding leads to more transparent novel forms than affixation both semantically and phonologically because both constituents are meaningful, known roots. Unlike many examples of affixation, compounding leaves the root of the word intact. As soon as morphologically complex words have been analyzed, the different constituents can be assigned meanings.

Lack of knowledge of the effects of derivatives is responsible for the relative difficulty in assigning meanings to constituent parts of complex words (Nagy,Diakidoy & Anderson 168). This is in accordance with Tyler and Nagy's conclusion that "the acquisition of morphology is by no means complete at the beginning of puberty" (641). When the function of a particular affix is not yet known to an individual, it cannot be interpreted by him. As such, words that contain such an affix will not be transparent to the user. In the case of a morphologically complex word, meaning can also be assigned to a form when the form-meaning relationship is consistent. Suffice it to say that semantic transparency is a prerequisite for assigning meaning to a form.

In a study of derivational morphology using assessment techniques, Nagy, Diakidoy and Anderson found that there is an increasing capacity for morpheme recognition with age (155). Older children generally performed better than younger ones, though not with regard to compounding. Investigations on L_1 acquisition show that children follow a fairly fixed order of acquisition. On the order of acquisition of English morphemes, inflections are acquired relatively early. Children in nursery three and primary one are in the final stage of acquiring

inflection (Tyler 59). It has been suggested that inflections and derivations have rather different roles in language acquisition and use. Inflection is often considered a global feature while derivation is more peripheral. One could say that derivation is optional while inflection is indispensable for the user (Clark 60). Another explanation is that inflection is typically that part of morphology that is most productive and leads to regular, transparent formations. The results of these types of knowledge are acquired at different moments in time.

Another relevant issue in the discussion of the sequence of acquisition of morphology is the distinction between knowledge and awareness. Morphological awareness is the metalinguistic awareness of the morpheme structure of words and the ability to reflect on that structure (Carlisle 199). Knowledge of morphology refers to the ability to produce and comprehend morphologically complex words. There is however, a relation between the two. Morphological awareness precedes morphological knowledge (Carlisle 203). It can safely be assumed that awareness of simple, transparent and productive word formation devices is acquired first while the ability to analyze and produce complex and less transparent words is achieved later and may last till adulthood.Studies of the stages of spelling development show seeming similarities as to how users develop. It was found out that the different stages share some common features which include revealing different skills and knowledge and describing spelling development as a transitory exercise (Carlisle & Goodwin 271).

Users progress through stages on their way to proficiency in spelling and each stage offers a different level of sophistication and knowledge of how spelling works. As

users know more about spelling, their invented ideas about it give way for conventional patterns. Researchers have identified the following stages: pre-communicative stage, semi-phonetic stage, phonetic stage, transitional stage and derivational constancy. In the first stage, learners scribble and are unable to associate the marks with any phoneme. In the second, they learn to represent phonemes with letters. In the third, they begin to spell monosyllabic words. In the fourth, they learn about inflections and in the fifth, they begin to explore the relationship between spellings and meanings.

Morphological Competence and Spelling Proficiency

English orthography maps unto the morpho-phonology of the language. Chomsky and Halle noted that where changes in pronunciation from a base to a derivational word are predicted by the regular sound pattern of the language, the orthography does not need to reflect the change. For example, ‘race’ to ‘racial’ and ‘reduce’ to ‘reduction’ (McGilvray 40). A number of studies have shown that the orthographic regularities seem to provide the reader with clearer clues to morphological relationships than the underlying phonological rules (Ramirez,Walton & Roberts 59). The reader who can discover from the regularity of the spellings that two words are morphologically related can use this knowledge to good advantage through efficient processing of words and through appreciation of semantic relationships and syntactic-variations. It is not surprising, therefore, that there appears to be quite a strong relationship between morphological knowledge and reading or vocabulary development (Freyd and Baron 293). The issue the researcher is addressing here is whether orthographic regularities are useful to the speller; whether knowledge of the morphemic structure of words which may be more apparent from the orthography than the phonology, is

drawn upon by the speller of derivational words. Reading and spelling, though closely related, are quite different tasks (Gabig &Zaretsky 25).

Carol Chomsky argues that the use of orthographic knowledge to spell derivational words correctly is a natural development, at least for the good speller who can recall the orthographic similarities of related words, even when the pronunciations are dissimilar. She suggests that the speller's knowledge of word families can help disambiguate such troublesome elements as the spelling of an unstressed vowel, as in 'democracy',where knowing ' democrat' helps or a silent consonant, as in 'muscle' where knowing 'muscular' helps (287-289). Nagy, Berninger & Abbott believe that the phonological and orthographic regularities apparent from reading words can be emphasized in instructions in spelling (146). However, neither Chomsky nor his contemporaries offer direct evidence to support the position that knowledge of morphological structure helps the speller spell derivational words correctly. While studies of the spelling of young children give some indication of a growing awareness of morphemic structure (Carlisle,Cole & Sopo 137), we do not know if an awareness of simple morphemic structure carries over to the spelling of derivational forms, particularly those that undergo phonological changes.

How well an individual speller can apply morphological knowledge to a task of spelling may depend on the speller's explicit knowledge as well as how extensive this knowledge is. It may also depend on the speller's mastery of the orthographic conventions that govern the addition of suffixes to base words. Morphology deals with units of meaning. So, the smallest unit of meaning in a language is a morpheme. It is one of the units that make up words and as a result, morphology is sometimes described as the study of the structure of words (Alutu

96). Sometimes, a morpheme can have just one syllable and at other times it may have more than one syllable.

Morphemes can be discussed in two major ways. One of them is the free morpheme which can but does not necessarily have to stand alone as a word. New morphemes can also be created through reduplication, suppletion and other methods (Chukwu 32). Studying morphology helps students to understand that English spelling is not just phonetic and why that is so. It also helps to raise or increase students' metalinguistic awareness, making them more likely to recognize patterns within words (Connor et al 211). Consequently, they will be more likely to recognize relationships between words and their reading of comprehension will improve. Learning to spell English words requires an understanding of the relationships between the phonemes and graphemes and a memory for those parts of words or words that are irregular (Carlisle 468). However, since English orthography is morphophonemic, it seems reasonable to believe that knowledge of the morphemic structure of words should be helpful, perhaps even necessary to spell accurately the many words of more than one morpheme that we use in writing.

Although we know that understanding morphology develops gradually from childhood to adulthood, little is known about the extent to which its knowledge helps an individual acquire proficiency in spelling. The verb 'to learn' for example, is not only linked to inflectional forms like 'learn' 'learned' and 'learning' but also the noun 'learners' and the adjective 'learnable". It would not be economical if all these forms have to be learned and stored separately. This would be unlikely considering the impressive number of words that can be formed using morphology. With an adequate knowledge of morphological regularities, a user can achieve a tremendous expansion of his or her vocabulary. Again,

morphology can be a helpful tool to facilitate the acquisition and use of words. Recent research into the acquisition and retention of foreign and second language vocabulary has shown that newly acquired words are better retained if they are initially inferred through linguistic cues rather than through context (Melcuk 97).Drawing attention to the morphological structure of words in a second language may result in an increased awareness of morphological complexity which can be an important strategy in acquiring words (Ehri 178).

In an alphabetic writing system, successful spelling involves segmenting a spoken word into individual sounds or phonemes and then, selecting the appropriate letter or letter clusters to represent each phoneme (Bourassa et al. 682).These processes are readily applied to such words as ‘hats’ and ‘mop’ and they present little or no difficulty for learners of the English language. However, other words pose great difficulties. Many phonemes have more than one spelling and as such, spellers must make appropriate selection. Sometimes, the choice depends on the phoneme in the word or syllable or the characteristics of the neighbouring elements. For example, the ‘ck’ spelling of /k/ may appear in the middle or at the end of words as in ‘packet’ and ‘pack’ but not at the beginning as in ‘ckap’. When ‘ck’ occurs in the middle or at the end of a word, it may follow a single letter vowel spelling but not two. Because of this graphotactic pattern, /wi:k/ ‘week’ cannot be spelled ‘weeck’. The spelling of the morpheme remains the same despite pronunciation changes that may occur when the morpheme is combined with others. According to the principle of morphological constancy, ‘health’ retains the ‘ea’ spelling of its base form ‘heal’ even though the vowel /e/ in ‘health’ differs from that of /i:/ in ‘heal’. Another example can be seen in the word ‘discussion’ where the ‘ss’ in ‘discuss’ is retained even though the pronunciation changes from /s/ to / ʃ /.

Morphological constancy is commonly observed in the English language and this was what led Chomsky and Halle to conclude that English orthography despite its often cited inconsistencies comes remarkably close to being an optimal orthographic system (McGilvray 49). However, not all morphologically complex words in English show morphological constancy in their spellings. For example, we write 'proclamation' rather than 'proclaimation' and 'hungry' instead of 'hungery'. Users use morphological constancy to improve their spellings. Young developing children derive some benefits from root morphemes when spelling morphologically complex words such as 'dirty', 'tuned' and 'turning'.

Other Related Models:

Dual Mechanism Model

The study by Marcus et al. which is based on the data from a study of the acquisition of English verb morphology and focused on over-generalizations during acquisition presents a dual mechanism model of the acquisition of morphology. In the English language, children often use the regular past tense marker '-ed' to form irregular past tense forms, for example, 'cut'-'cutted'. The proponents of this approach offer a simple explanation which is that the acquisition of morphology is guided by two fundamentally different mechanisms. The irregular verbs are stored in the child's lexicon; a child acquires them through association links but regular verbs follow the rules of inflectional formation and are each formed separately each time. If a child finds an irregular verb in his lexicon, it blocks the rule for inflectional formation. At the same time, the child's memory for such words becomes weak and the child cannot find the irregular verb in

the lexicon quickly enough. As a result of this, the rule formation mechanism is triggered earlier and results in over-generalizations, for example, 'come'-'comed'. In the English language, regular and irregular inflections can be clearly separated. English has relatively few regular words, therefore, one might assume that a child simply memorizes them.

Connectionist Model

According to the connectionist model, the acquisition of morphology should be discussed in terms of the acquisition of the lexicon .Proponents of this model claim that both lexical and morphosyntactic developments are based on a simple acquisition model (Newmeyer 700). The connectionist model has been used to explain the acquisition of both nouns and verbs. Also, it has been used to explain why in the case of nouns; overgeneralizations appear earlier than in the case of verbs. The author claims that at the stage of acquiring morphology, the total number of nouns in a child's lexicon is simply higher than the total number of verbs. Besides, English has a smaller number of irregular nouns than irregular verbs (Deacon et al. 19). It appears that only after the vocabulary of the user has reached a certain size does it begin to make assumptions about the rules of inflectional formation of existing words followed by the manifestation of over-generalizations (Newmeyer 702). They found that users acquired words at a slower rate, that is, in manageable doses and no overgeneralization was revealed. On the contrary, when users were taught more verbs at a time, there were more generalizations (Deacon 19). The model assumes that a user is able to perceive the stem of a word which part of speech remains the same in all forms. Thus, acquisition can begin only after user's mental lexicon holds a reasonable numbers of lexical units in order to be able to put forward one's own hypotheses (Goodwin, Gilbert & Cho 39).

They have also emphasized that though there is a close link between vocabulary size and morphosyntactic development though it is not linear. For example, while a user's vocabulary include a small number of verbs consisting of both regular and irregular verbs and in many cases, only verbs without inflectional morphemes, his speech contains few overgeneralizations. By contrast, as soon as a user's vocabulary of verbs exceeds fifty lexemes, stems without suffixes quickly disappear and the number of regular verbs with the correct past tense marker increases. However, the number of overgeneralizations increases abruptly starting from sixty or seventy verb lexemes (Deacon 20). As such, the acquisition of lexical units triggers the organization of the units in a way that enables the users to establish general formation patterns on the basis of the existing forms and to apply them productively thereafter. The major difference between the dual mechanism model and this model is that the former holds that irregular verbs are stored in a user's mental lexicon while the regular ones are rule-based and could be drawn upon each time but the latter considers them as one entity.

Network Model

This model is formulated by McCutchen, Logan and Biangardi-Orpe. It is similar to the connectionist model in that it does not discriminate between regular and irregular inflections like the dual mechanism model of acquisition. The major difference between the two is that the connectionist model regards the frequency of textual words as mapping between the base form and the other forms while in the case of the network model, one assumes that the more frequent a word form is, the weaker the link between the concrete form and the base form. When showing links between frequency and irregular inflectional formations, they claim that in English, for example, some irregular

words which for various reasons are not highly frequent anymore, tend to show regular inflectional formations (362). According to them, the essence of the network model is as follows- words entering the lexicon are linked with other words with similar phonological and semantic characteristics. The link can be strong or weak depending on the number of shared features. For example, a weak semantic link is characteristic of forms with stem alternation.

McCutchen, Logan and Biangardi-Orpe claim that stem alternation is more frequent in those forms that reveal weak semantic interrelation, for example, where the tense forms or aspects are different as in 'break'-'broke' but not in those forms that reveal a difference only in person or number as in 'break'-'breaks'. Again, the frequency of a lexeme affects the strength of the bond; it is easier to acquire less frequent words through their links with other already acquired words. Highly frequent words are acquired autonomously. Words that have similar semantic and phonological shapes are similarly inflected and give rise to generalizations that can be described as schemas (363).

According to them, two kinds of schemas are source-oriented schemas, that is, generalizations between two forms, the base and the inflected forms, 'wait'-'waited' and target-oriented schemas, that is, generalizations on the basis of a certain amount of inflected forms – 'strung', 'stung', 'flung' and so on. Acquisition does not begin with an unmarked base form but generalization is made on the basis of all the used forms. The main idea of the model lies in the fact that the morphological characteristics of a word, the paradigms and the morphological patterns that can be described as rules are acquired on the basis of arising associations between the lexical representations.

Construction-based Approach

Many usage-based approaches of language acquisition do not focus on a single form. They rather focus on the function of a form and on the construction where a form occurs. Michael Tomasello who applied this model does not assume the child to begin the acquisition of grammar from the establishment of adult-like categories or to make efforts to fill gaps in some adult-like structures. Rather, he believes that a child establishes and builds the grammatical categories step by step. While the categories are established, the child's language reveal non-adultlike forms which arise because they generalize an inflectional pattern to such words that do not follow this pattern. Proceeding from a psycholinguistic perspective according to which the acquisition of grammar takes place, the child perceives and performs communicative functions and acquisition occurs by means of imitation and the child uses a linguistic symbol in the same way as an adult does during communicative functions (169). Proponents of the usage-based approach claim that users form constructions of varying degrees of complexity and use them at different degrees of abstraction. Construction grammarians claim that children acquire the inflectional system by means of certain constructions and lexical patterns (Deacon et al 17).

2.2 Theoretical Framework

This study is hinged on the phase theory propounded by Tyler and Nagy as well as Ehri. In it, they assert that the acquisition of morphological competence in spelling is something that happens in stages. By this, they mean that older users have a better understanding of the internal make-up of words than younger users. It is quite obvious that many words in the English language have not just internal structures but complex ones. Due to the nature of inflectional morphemes, they are acquired much earlier than

derivational ones. There are three aspects of knowledge of derivational morphology. The first is the relational knowledge, second is the syntactic knowledge and finally, there is the distributive knowledge. The first is not quite difficult; users easily master it. The second is more tasking and the third which is the most difficult of all three continues to be studied even till adulthood. Coming to the inflectional morphemes, some of them are also acquired more easily than the others. In fact, the older and more exposed ones get the better understanding of morphology and its intricacies.

It is worthy to note that the phonetic and non-phonetic systems of spelling conceal the fact that morphemic structure plays a large role in the formation of English words. (McGilvary 122). Reference is also made to Language Acquisition Device which was formulated by Noam Chomsky. Language acquisition device is a postulated organ of the brain that is supposed to function as a congenital ability. It is part of Chomsky's acquisition hypothesis. Linguistic knowledge and ability are the products of a universal innate ability. In Chomsky's view, certain aspects of linguistic knowledge and ability are the product of a universal innate ability or 'language acquisition device' that enables each normal child to construct a systematic grammar and generate phrases.

This theory claims to account for the fact that children acquire language skills more rapidly than other abilities, usually mastering most of the basic rules to recognize underlying syntactic relationships within sentences. Chomsky cited the fact that children understand the transformation of a given sentence into such forms as interrogative and declarative and can easily transform sentences of their own. Carol Chomsky argues that the use of orthographic knowledge to spell derivational words correctly is a natural development, at least for the good speller who can recall the

orthographic similarities of related words, even when the pronunciations are dissimilar. She suggests that spellers' knowledge of word families can help disambiguate such troublesome elements as the spelling of an unstressed vowel as in 'democracy' where knowing 'democrat' helps or that of a silent consonant (Chomsky 287-303). Charles Read holds a similar view.

Although from the moment children start uttering their words around age one, they steadily work on their vocabulary to extend it to about five hundred recognizable words when they are two years old. From then on, they will acquire about ten new words a day, working toward an average of fourteen thousand words in their vocabulary at age 6 (Reed 41). They eventually get to twenty thousand and fifty thousand words that adult speakers of English have at their disposal (Tomasello 182). The eventual knowledge of words may be as high as two hundred and fifty thousand (Keifer & Laxaus 134). Faced with the extra-ordinary task of acquiring all those words in a relatively short period of time, it is only logical that children will apply any means within their reach to increase their lexicon. Obviously, morphology provides a powerful way of improving one's lexicon and morphological generalization may, in part, explain the rapid vocabulary growth in the primary school years, that is ages 4-13 (Wray 107). The ability to interpret words on the basis of morphological analysis was found by Freyd and Baron to explain the relatively large number of vocabulary of senior students in a test they conducted (289).

Moreover, the performances of first grade pupils on reading comprehension was accurately predicted by their scores on a morphological production task. This shows that there is a significant relationship between morphological awareness and reading achievement in early school years (Carlisle 473). This should not sound surprising

considering that 86 per cent of the derivationally suffixed words in printed school English is semantically transparent (Nagy and Anderson 328).

2.3 Empirical Studies

English derivational and inflectional morphemes which are the basic units of word formation and the principles governing their combination have engaged the attention of researchers in linguistics, psychology, and reading over the years. The findings indicate that knowledge of derivational and inflectional morphology may be important in language processing in several ways: knowledge of the internal structure of words may play a role in lexical access (Leech, Rayson and Wilson 287). Because derivational suffixes mark words for parts of speech, they may be useful in helping speakers establish the syntactic structure of sentences (Carlisle 122). Finally, knowledge of morphology appears to be helpful in assigning meaning to unfamiliar derived words (Connor et al. 102). As such, it facilitates vocabulary growth.

In spite of the moderate attention given to derivational morphology, we have only fragmentary and inconsistent information about its acquisition.

Some research indicates that the acquisition of derivational morphology begins as early as the preschool years. Carlisle found evidence of some knowledge of the agent suffixes '-er' and '-ist' even for four and five -year- olds (312) and Jarmulowics found that second graders had already begun to learn the relationship between stems and derivational forms with common suffixes such as 'argue' and 'argument' (68). But even if some derivational suffixes such as '-er' are acquired fairly early, several studies suggest that, in general, students in the middle grades neither have much knowledge of morphology nor make much use of what knowledge they may have. Freyd and Baron

(292) compared above-average fifth graders with average eighth graders in their use of suffixes when learning morphologically related nonce words. Children were taught a list of nonce words, half of which were related to real English suffixes, for example, ‘prok’ meant ‘high’ and ‘prokness’ meant ‘top’. For the other half of the words, the suffixed and non-suffixed forms had totally unrelated meanings. The students’ knowledge of derivational morphology should reflect better score for the former group of words than for the latter. Results indicated that bright fifth graders had some knowledge of morphological relations while average eight graders did not demonstrate this knowledge. Furthermore, neither group incorporated the part of speech information inherent in the suffixes into their definitions.

Wray taught fourth, sixth and eighth grade students the meaning of infrequent words such as ‘sapient’ and then tested their knowledge of suffixed derivatives, for example, ‘sapience’. Although eighth graders were usually able to recognize the relationship between the suffixed derivative and the word they had been taught; they were able to demonstrate knowledge of the syntactic contribution of the suffix for only a third of the suffixed derivatives. Although the words were presented in a context that made the parts of speech of the words apparent (110).

He also investigated students’ use of common Latin prefixes and stems to infer the meaning of unfamiliar words such as ‘exsect’ and found that college students, but not high school students, use the internal morphological structure to infer the meaning of words (115). At first glance, the available research presents a somewhat contradictory picture. But some order can be introduced by recognizing some differences in the types of morphological knowledge that were being tested and the tasks used to test the knowledge. More specifically, it is necessary to take into account distinctions between

classes of word formation processes, different types of knowledge about derivational morphology, different degrees of knowledge of stems and different types of tasks participants have been asked to perform.

Research has identified a predictable pattern in the acquisition of inflectional affixes, for example, word endings such as '-ed' and '-ing'.

Apel and Deihm studied children's language development between the ages of 24 and 48 months and found that the sequence shown occurred regularly (68). Features were listed in the order in which they were acquired.

1.) Plural -s

2.) Possessive-'s

3.) Past tense '-ed'

4.) Third person singular verb ending '-s'

Another study by Cruttenden divided the acquisition of inflections into three stages:

1.) Initially, children memorize words on individual basis and have no regard for general principles or rules. This means, for example, that they may at first produce the correct plural form of 'foot' - 'feet' and the correct past tense of 'run' -'ran'.

2.) During the second stage, they show an awareness of the general principles governing inflections and as a result may apply regular endings to words that do not require regular inflections. For example, they observe that plural nouns usually end in '-s', so they use 'foots' as the plural of 'foot'. In the same way, they observe that past tense forms usually end in '-ed', so instead of 'ran' they say 'runned', this kind of error is known as overgeneralization or over-regularization**.**

3.) In the third stage, correct inflections are used, including the irregular forms.

Children go through a developmental stage when they tend to over-generalize the pattern of regular morphology, producing incorrect past tense forms such as ‘goed’ and ‘comed’ and incorrect plural forms such as ‘tooths’ and ‘mouses’ (343).

It is surprising that they produce these wrong versions after they have acquired the correct forms. They also go through a stage when they extend irregular past tense patterns to regular verbs and as such, produce pairs like ‘bring’- ‘brang’, ‘trick’- ‘truck’. Studies reveal that children are able to extend regular patterns of inflection to new lexical items and make use of derivational rules to create new words. This shows that the child is not a rote learner but is creative in the domain of morphology as he is in the domain of syntax. The split morphology hypothesis suggests that inflectional and derivational morphology are acquired differently.

Berko provided experimental evidence that children have knowledge of morphological rules and are able to extend them when dealing with new words. He tested for knowledge of regular inflectional morphology - the plural ‘-s’ of nouns, the two possessive forms of nouns - the ‘of’ genitive and the - ‘’s’ genitive, the third person singular ‘-s’, the regular past tense form ‘-ed’, the present participle ‘-ing’ as well as the comparative and superlative adjectives. In his experiment, English monolinguals aged 4 – 7 were shown various cards and given invented words for the objects / actions in the cards. They were asked questions which required them to use the right inflection of the words given. Invented words were also given and the reason for that was to test the children’s ability to extend morphological rules to new words and at the same time disprove the motion that the mastery of morphology is by rote. Some real words were also given to test the children’s knowledge of irregular patterns. Regular inflection is

productive and open-ended. Irregular forms should be memorized in an associative structure to foster analogy (266). The acquisition of regular and irregular inflection is seen as representing two qualitatively different psychological mechanisms; regular inflection is based on symbolic rules while irregular inflection is based on an associative process of storing information. Irregular forms are not memorized individually by mere rote. Erroneous words like bring -brang; bite-bote and wipe - wope seen in a child's English provided evidence that patterns can be detected among irregular forms. This suggests that irregular pairs are stored in a memory system that superimposed phonological forms, fostering generalization by analogy. (Harris,Schumaker & Dressler 29).

This is all about the dual mechanism model. Results of experiments show that children are pattern makers. When they begin to acquire the inflections that mark tense, for example, they typically take irregular verbs such as break, bring and go and treat them as if they belong to the regular paradigm of 'walk', 'open' and 'jump' (Carlisle 307). This pattern making process is preceded by a stage during which the child uses the irregular forms correctly. "However, during this pattern extension, the child still uses the correct irregular forms which rarely drop out but rather continue to compete with their over-regularized counterparts throughout the period of error-making". (Bowerman 342) Dixon and Aikenvald conclude by saying that children may alternate between the over-regularized '-ed' form and the irregular form for a period of months to years using both 'broke' and 'breaked'(203).Deacon and Bryant analyzed 11,521 past tense utterances from spontaneous speeches of 83 children. The results showed that children over-regularized the past tense in only 4% of the situation. This suggests that the

correct irregular forms are not completely replaced with the over-regularized regular ones.

Children go through several stages of morphological development before acquiring the correct irregular forms; they begin with the correct irregular forms but after acquiring the regular pattern, they extend it to all the forms. At this stage, they use both the over-regularised form and the correct irregular one. After a while, they stop over-regularising and start using all the forms appropriately.

The examination of children's means of deriving new words at an early stage of their linguistic development leads to a similar conclusion as in the case of inflectional morphology. Children are innovative learners. Though the number of conventional words which they have learnt is limited, they create novel forms out of words or on the pattern of those words which they already know. Whenever they produce innovative compounds, the words are appropriately ordered. When asked to select a picture which matches the meaning of a compound, they correctly chose the picture which depicts the object labelled by the head of the compound. Children seem to be extremely gifted word creators.

Carlisle studied the detailed corpus of a child's language development and found 1,351 innovative nouns which would roughly correspond with one new noun per day over a four-year period. For example, children can derive abnormal verbs which do not exist in the adult lexicon.

(i) You have to scale it. (= to weigh)

(ii) Is it all needled? (= is it all mended)

(iii) Will you chocolate my milk? (put chocolate…)

He suggests that children's innovations reveal a systematic reliance on principles of acquisition which are transparency of meaning, simplicity of form and productivity.

Early compounds are usually of the same form - noun + noun, for example. The principle of simplicity of forms refers to children's tendency to make the fewest possible changes to familiar words or affixes when creating new ones.

The principle of productivity states that children first acquire and then, use those ones which are preferred within their speech community.

Finally, children are not rote learners of morphology and they are guided by general principles in the creation of new words.

According to Marinova-Todd, Siegel and Mazabel research on the acquisition of inflectional morphology has provided evidence that inflectional paradigms are acquired gradually, affix by affix (97).Whereas proponents of the full competence approach focus on observations that indicate early acquisition of inflectional paradigms, advocates of structure-building approaches try to show that inflectional paradigms are not yet available in the early two word stage (Freyd and Baron 315). Thus, controversies are on whether utterances displaying early correct inflection should or should not be considered as unanalyzed units and whether the percentage of correct occurrences of an inflectional affix is more obtainable with respect to the acquisition of inflectional markers(328).

The input a child receives influences the acquisition of inflected forms. Input characteristics such as frequency of specific forms and constructions in the input plus the typological characteristics of a child's language's inflectional system determine the acquisition process (Marinova 99). This, however, is a matter of debate. Interactions between the build-up of phonological structure and the production of inflectional

markers or between the acquisition of inflectional suffixes and the consequences for syntactic structures indicate that more is going on in the mind of language user than what could be accounted for by input characteristics alone.

Summary

Several usage-based models of language acquisition explain the acquisition of regular and irregular inflection as two different processes. In the case of the dual mechanism model and the network model, one assumes that the irregular forms are memorized as unanalyzed units. In the connectionist model, however researchers believe that in order to form irregular forms, a child establishes connections on the basis of a large number of phonologically similar forms. All three previously mentioned models treat the development of inflectional formation with regard to the lexicon. The role of the other levels of the linguistic system and the cognitive factors remain insignificant. By contrast, in the construction-based approach, the purely morphological and language-specific factors play a secondary role in the acquisition of inflection. However, the constructivist theory of the acquisition of morphology has a number of advantages over other models and approaches. One of them is that the morphological data cover inflectional, fusional and agglutinative languages. Another is that it assumes that during different development stages of the child language, acquisition is governed by different mechanisms. As such, it is able to describe the acquisition of language during different stages of development. Yet another is that language structures do not operate independently; each of them is used together with other forms in specific language situations to perform some specific communicative functions.

Chapter Three

Methodology

Introduction

This chapter shows the different forms of tests that will be administered to subjects in the course of the study in order to have the earlier stated research questions answered. The focus of these tests is on the morphological competence of the second language users; therefore, the test sentences will be kept as syntactically simple as possible so that they are less likely to cause confusion or misunderstanding. The sentences are also designed to be semantically comprehensible and are formulated in a way that they would provide very clear contexts, making the meanings of the targets as clear as possible. Some target words have very clearly identifiable stems while others have not. The researcher is aware of the fact that this has introduced some difficulties in the test but, on the other hand, it also makes the test potentially more interesting in the sense that the two kinds of affixation may lead to varying results. In order to ensure that the participants understood the tasks, an example is shown for each of the tasks.

The methodology is discussed under the following headings:

- Choice of subjects
- Instruments for data collection
- Specification of variables
- Method of analysis

Choice of Subjects

Five schools will be used to carry out this investigation. A total of 900 participants randomly chosen and confirmed by their teachers to be mentally stable without any learning disability

will be used for this study. There will be 50 participants selected from each of the primary classes of God's Wisdom International School ,Nnewi and those of Uhuobo Community Central School, Okija. There will also be 50 participants each from JS 3 and SS 3 classes of Immaculata Girls' Model Secondary School, Nnewi, Seat of Wisdom Secondary School, Ozubulu and Community Secondary School, Ihembosi. The medium of instruction in the schools located in Nnewi is the English language but on Fridays, students in this secondary school and pupils in the primary school speak Igbo as a way of promoting it.

Participants in these two schools also go for competitions and come out with flying colours. The Igbo language is the dominant language spoken in Nnewi but all students of the school live in the school premises and go home only during the holiday and mid-term break. As for the pupils, they spend more time in school than at home and there are many pupils from other ethnic backgrounds and others who are non-Nigerians. Nnewi town comprises mainly of businessmen and women, civil servants and low income earners like domestic workers and hawkers. There is a gradual influx of high income earners and professionals due to Nnamdi Azikiwe Teaching Hospital situated in it.

The dominant language used in the other schools located in Ozubulu, Okija and Ihembosi is Igbo but sometimes, teachers address students in the English language and for the secondary school in Okija, the students also, maybe because it is a mixed school, converse in English sometimes. The researcher chose (50) fifty participants from each of the classes which were primaries one to six and same number of participants from the secondary schools; they were JS3 and SS3 students. These are students in examination classes who are believed to have been taught the things they ought to know in preparation for the junior and senior West African School Certificate examinations. The choice of these schools in their different localities is

informed by the need to find out what influence the environment could have on acquisition of morphological competence and for comparison. The subjects that participated in the tests were 900 Igbo speaking users of English drawn from the schools earlier mentioned.

Though the secondary school participants did not finish from the selected primary schools, they passed through other primary schools in Anambra State. All of them in the state have the same scheme of work prepared by the state government. Besides, they write the same Common Entrance Examination which qualifies them for entrance into secondary schools. It is then believed that the only difference there is lies in the methodology. The rationale behind the choice of primary and secondary schools in different localities is that the researcher wishes to observe the developmental trend of acquisition of morphological competence as well as find out what influence an environment can have on acquisition process of morphemes.

The ages of primary one participants range from 4+ to 6+ years, primary 2 6+ to 8+,primary 3 range from 7 to 9^{+}. Those of primary 4 participants range from 8 to 11^{+} primary 5,9 to 12 years and those of primary 6 range from 9 to 14 years old. The ages of JSS 3 students range from 13^{+} to 15^{+} while those of SS3 students range from 16^{+} to 20^{+}. The pre-test oral interaction with them showed that a good number of them especially in schools located in Nnewi had been exposed to the English language as a medium of communication at home and as that of instruction in school right from nursery school.

Each class of the participants consists of fifty pupils selected randomly by allowing the children to pick from a collection of pieces of papers on which ‘yes’ and ‘no’ have been written. Those who picked ‘yes’ took part in the test and those who picked ‘no’ did not take part. The results of each of these groups of participants will be shown in tables and graphs.The

choice of beginning with primary one pupils was made because the researcher found out, contrary to beliefs by some scholars, that learning derivational morphology starts from third or fourth year in primary school following mastery of inflectional morphology, some primary one pupils use derivational words correctly in their speech.

Instruments for Data Collection

Series of tests will be administered to carry out this investigation. The first test is on knowledge of inflectional morphology. There are a hundred questions on it. Here, the participants would be required to provide the correct inflectional form for each of the given sentences. It carries a hundred marks. The second test is in five parts:

a. on knowledge of inflectional morphology
b. on generating base and derivational forms
c. on segmentation of words into constituent morphemes
d. on identification of morphemes
e. on knowledge of parts of speech

Each of these tests consists of 40 questions and also carries a hundred marks.

There will be a comparison of the pupils' performances to those of the students in the selected schools. This is to ascertain the developmental trend as well as the sequence of acquisition. There is also a test on the participants' knowledge of word families. Questions will be set taking a cue from the following:

a) The Premier English Textbook for Primary Schools

b) Written dictation exercises administered by class teachers

c) Inter-school English Language quiz competition questions

d) Common entrance examination questions on the English language

e) Intensive English for Secondary Schools

Specification of Variables

The Dependent Variable

Different people hold different views for the poor or good performance of pupils in morphological awareness tests. As such, tasks considered to be within the scope of the understanding of the participants' class are usually administered. It also reflects the opinions of the teachers who believe that no child is a dullard rather good performance will come in time.

The Independent Variable

The research supported the view that the acquisition of proficiency in morphological awareness exercises is developmental; it continues up till adulthood.

Method of Analysis

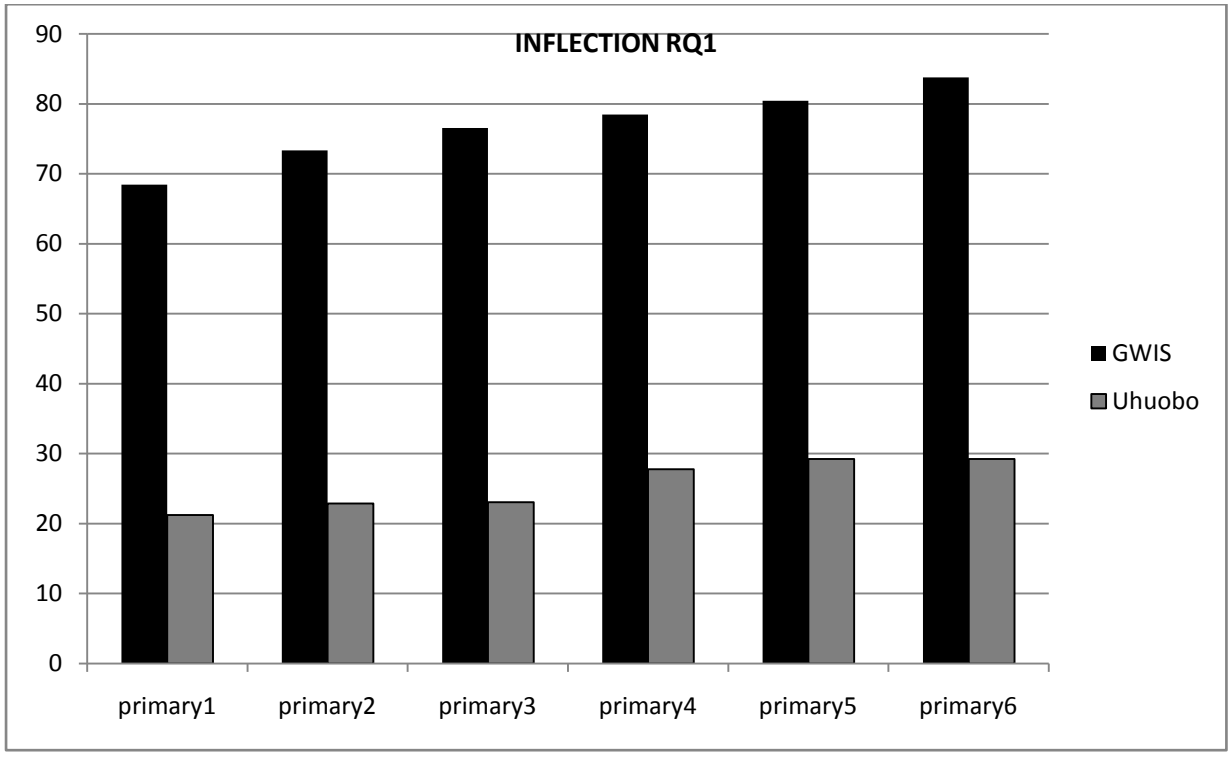
The result of the performances of the different classes of pupils will be collated after assessment exercises are given. They will be appropriately tabulated to show a possible sequence of attainment of proficiency in handling morphological problems. Using this method, it will be easy to arrive at the desired conclusion. The researcher will use the mean scores of every class of participants to know the trend of acquisition of the different morphological items: the scores of all the participants will be added together and divided by the total number of the participants who wrote the test. This would clearly show the order of acquisition of the different morphological items. The mean scores of the primary school pupils in the 5 different tests will be compared with those of the secondary school students in order to arrive at the desired results.

Chapter Four

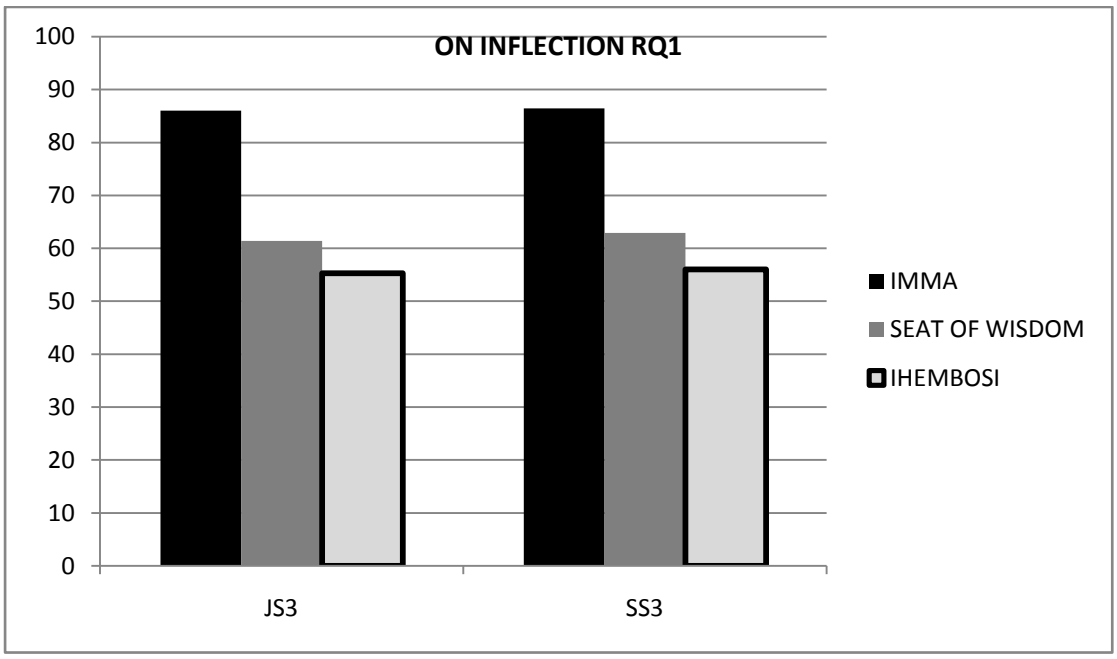
Presentation of Data and Analyses

Research Question I: On knowledge of inflection

Mean scores of the different groups of participants RQ1		
Classes	GWIS	Uhuobo
primary1	68.44	21.24
primary2	73.36	22.86
primary3	76.56	23.08
primary4	78.46	27.78
primary5	80.46	29.22
primary6	83.78	29.24



Class	IMMA	SEAT OF WISDOM	IHEMBOSI
JS3	86.04	61.4	55.28
SS3	86.44	62.92	56



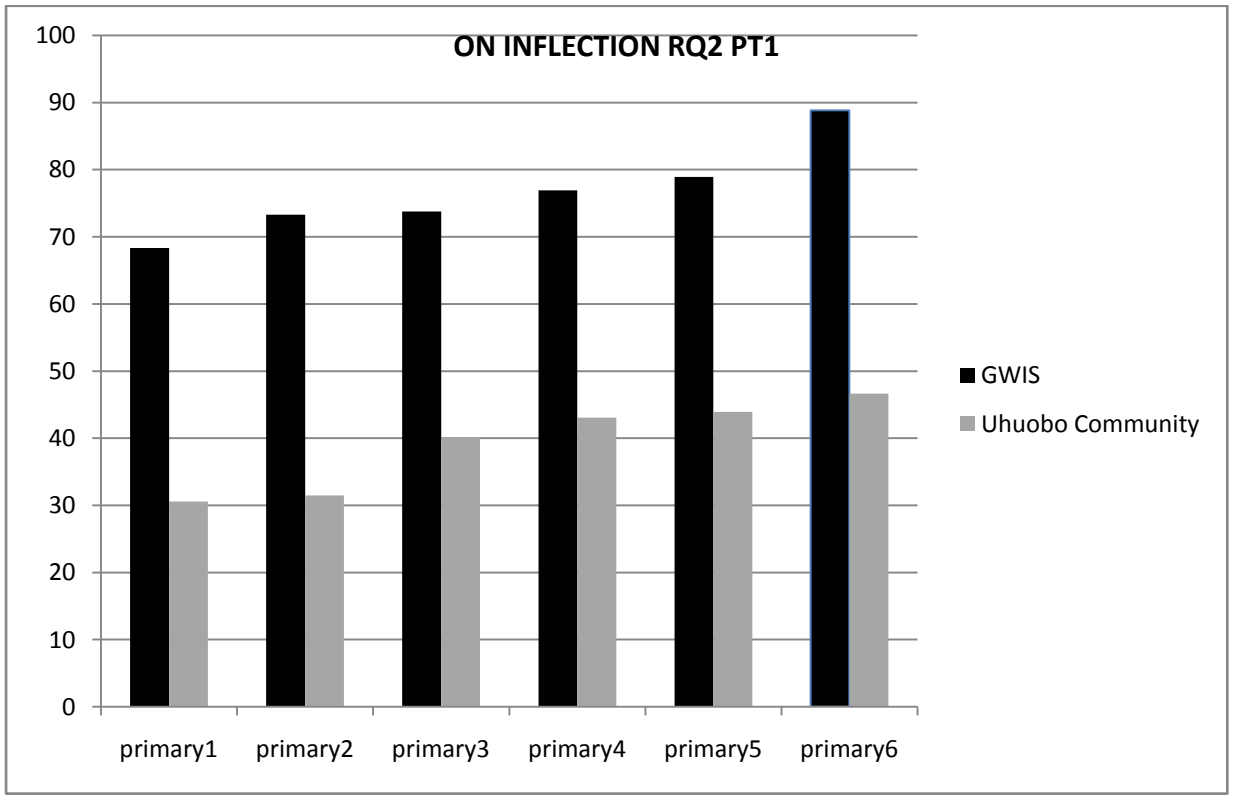
Analysis of Research Question I

From the graph, it could be observed that primary 1 participants of God's Wisdom International School, Nnewi did not do badly at all. The mean score of the fifty participants was 68.44. They manifested knowledge of the use of inflectional morphemes especially, the plural marker '-s', the present continuous marker '-ing' and past tense marker '-ed1'. Providing the past participle forms of the verbs was also not so difficult except for irregular verbs. Also, providing the comparative and superlative forms was easy but for words that need orthographic change before the addition of 'er' and '-est' morphemes. For example, 'dryer' and 'thiner' were marked wrong because the topic bordered so much on spelling. None of them portrayed that he had an idea of genitive case, that is, the possessive case. They all failed questions on it. Primary 2 pupils' performances were quite an improvement on those of primary 1. This meant that learning was still taking place. The least score was 66 and the highest was 79 out of 100. Their mean score was 73.36. Primary 3 participants' mean score was 76.56,primary four 78.46, primary five 80.46 and primary 6 participants 83.78. Their performances were quite impressive. They cannot be said to have poor knowledge of inflection. Worthy of note is the fact that the higher the class, the older the participant and that implied a better understanding of morphology and how it works and better retention of knowledge. Primaries 1 and 2 pupils of Uhuobo Community Central School, Okija appeared to be ignorant of every aspect of inflectional morphology apart from the plural marker (s) and the '-ing. Their performances were not at all impressive. The rate of improvement was rather slow. There was a marked difference between the performances of primary 2 pupils and those of primary 3, even though they were yet not impressive. Primaries 5 and 6 pupils' mean scores were 47.54 and 49.14 respectively. This implied that at 11 years of age, some users were still acquiring certain forms

of inflectional morphemes. In conclusion, pupils from God's Wisdom International School as shown in their performances were far ahead of their counterparts in Okija.

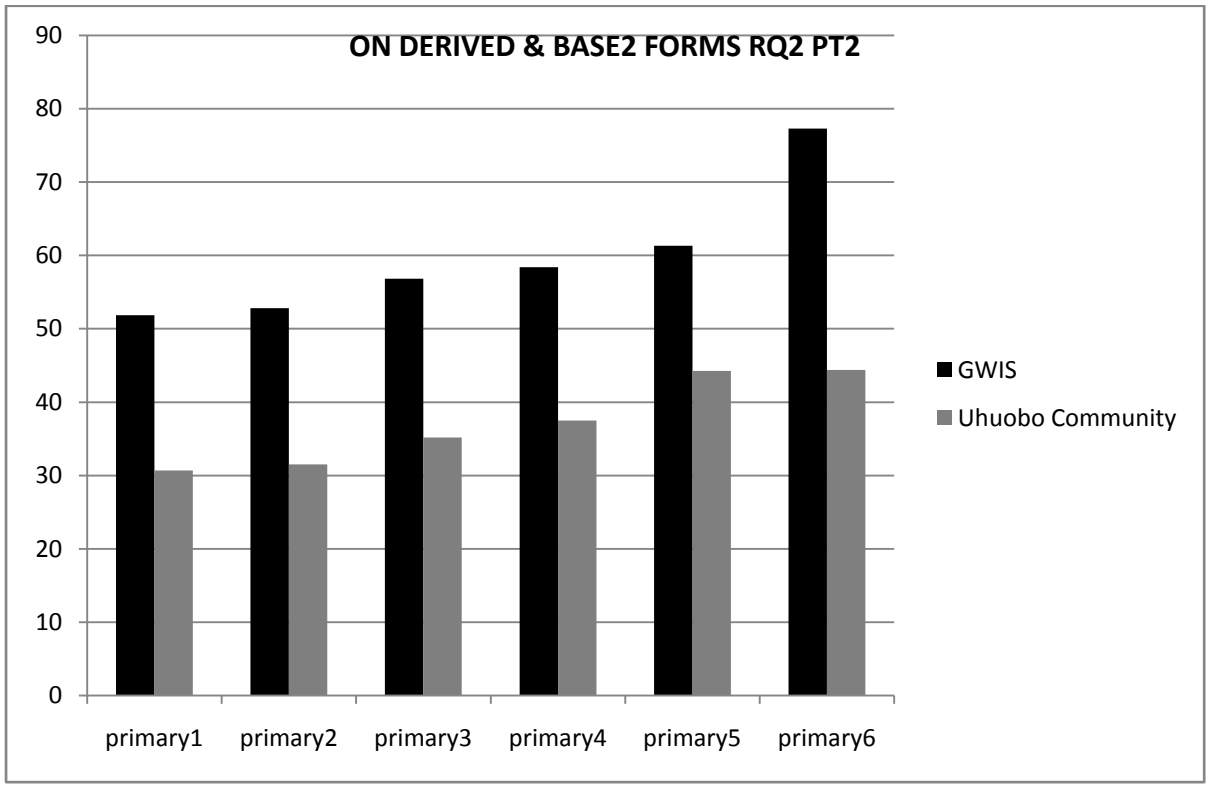
Research question 2 part 1: On inflection

Research Question 2 Part1	Mean scores	
Classes	GWIS	Uhuobo Community
primary1	68.32	30.56
primary2	73.28	31.48
primary3	73.76	40.12
primary4	76.92	43.04
primary5	78.92	43.92
primary6	88.8	46.64



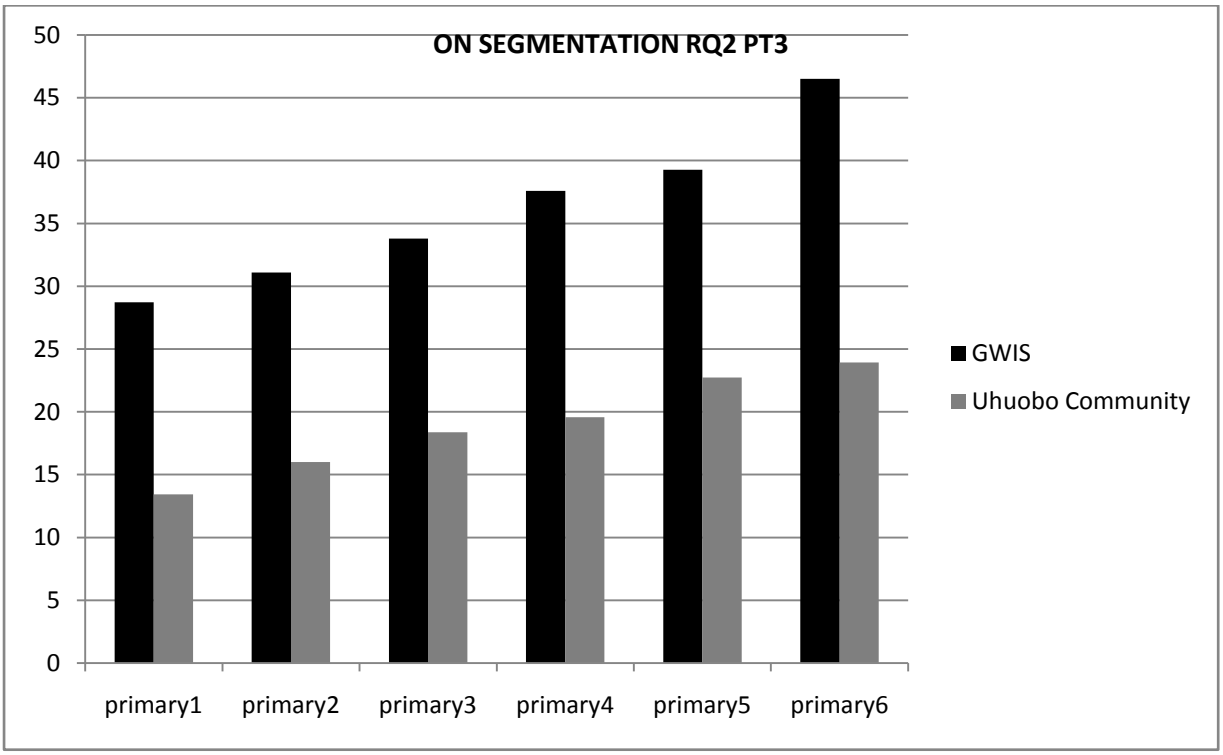
Research Question 2 Part2: On derived words

RQ2 PT 2	Mean scores	
Class	GWIS	Uhuobo Community
primary1	51.84	30.68
primary2	52.8	31.52
primary3	56.84	35.2
primary4	58.4	37.5
primary5	61.32	44.24
primary6	77.28	44.4



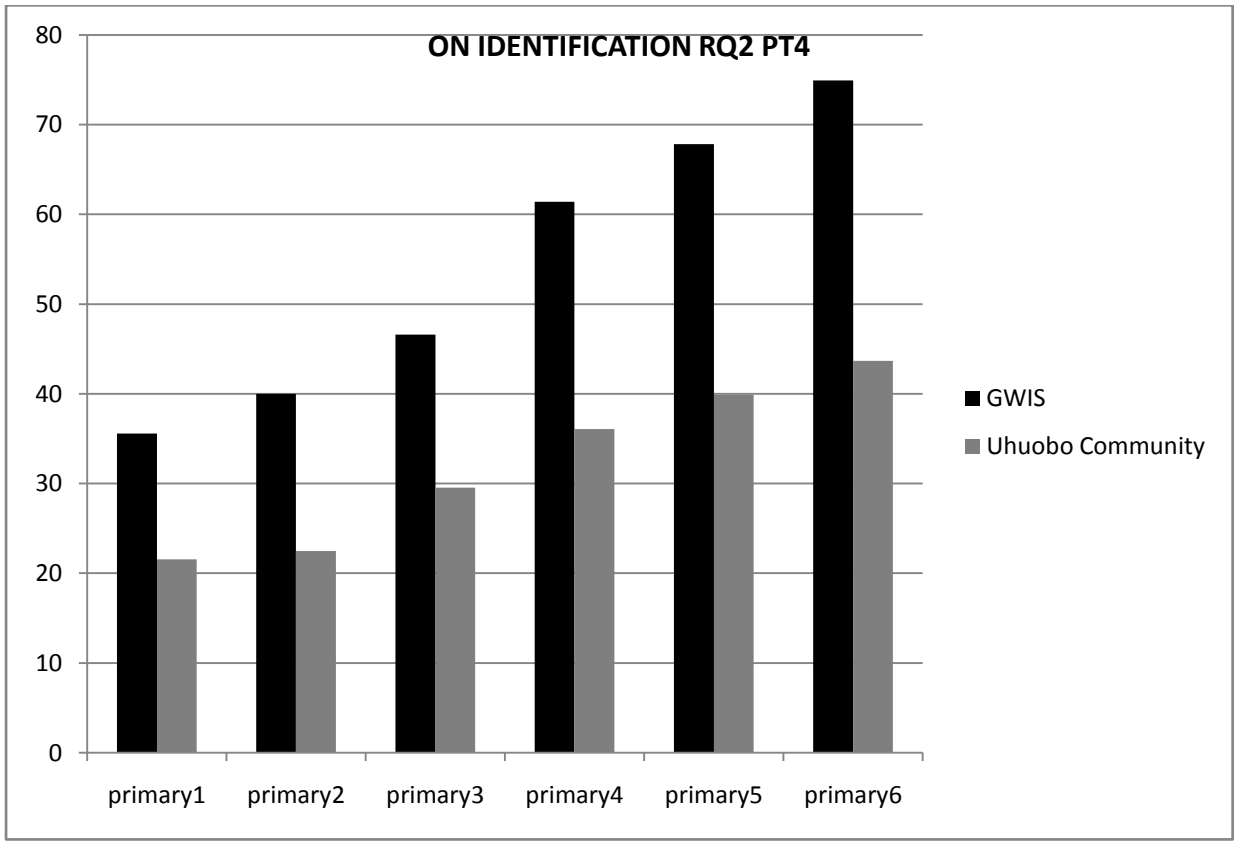
Research question 2 Part 3: On segmentation

RQ2 PT3	Mean scores	
Class	GWIS	Uhuobo Community
primary1	28.72	13.42
primary2	31.1	16
primary3	33.78	18.38
primary4	37.58	19.56
primary5	39.28	22.72
primary6	46.5	23.92



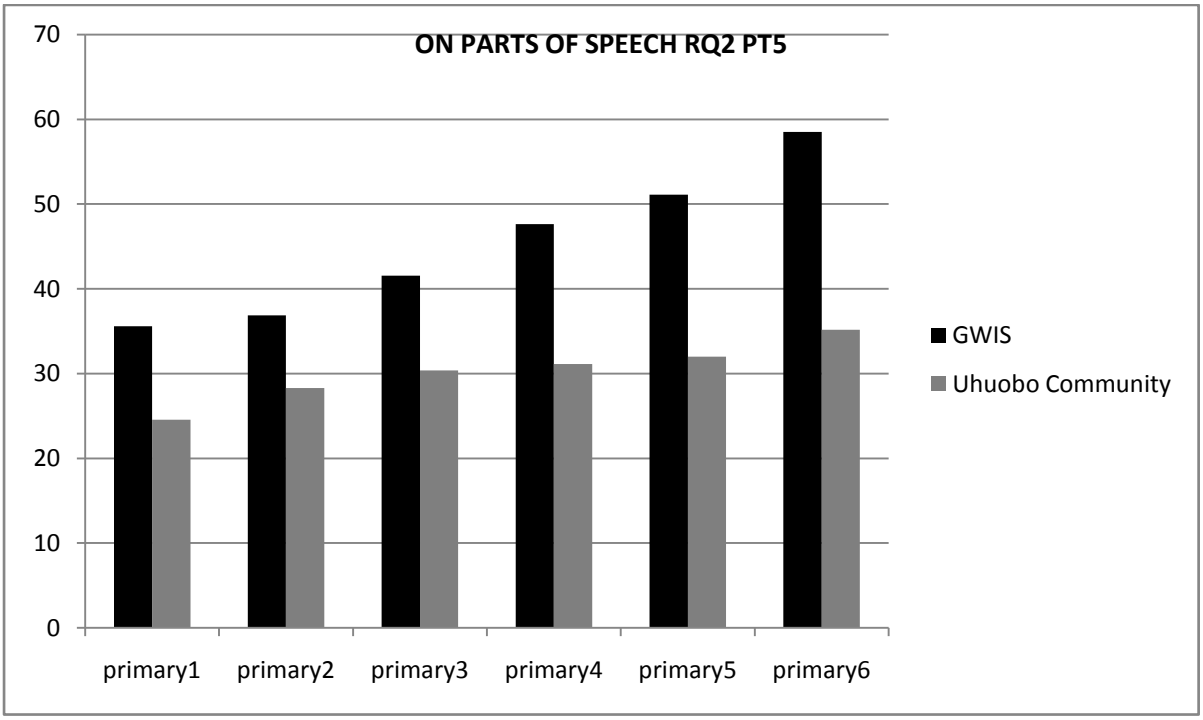
Research Question2 Part 4: On word families

RQ2 PT4	Mean scores	
Classes	GWIS	Uhuobo Community
primary1	35.56	21.56
primary2	40	22.48
primary3	46.6	29.56
primary4	61.4	36.08
primary5	67.84	39.88
primary6	74.92	43.68



Research Question 2 pt 5: On parts of speech

RQ2 PT5	Mean scores	
Class	GWIS	Uhuobo Community
primary1	35.6	24.56
primary2	36.88	28.28
primary3	41.56	30.36
primary4	47.64	31.12
primary5	51.12	32
primary6	58.52	35.16

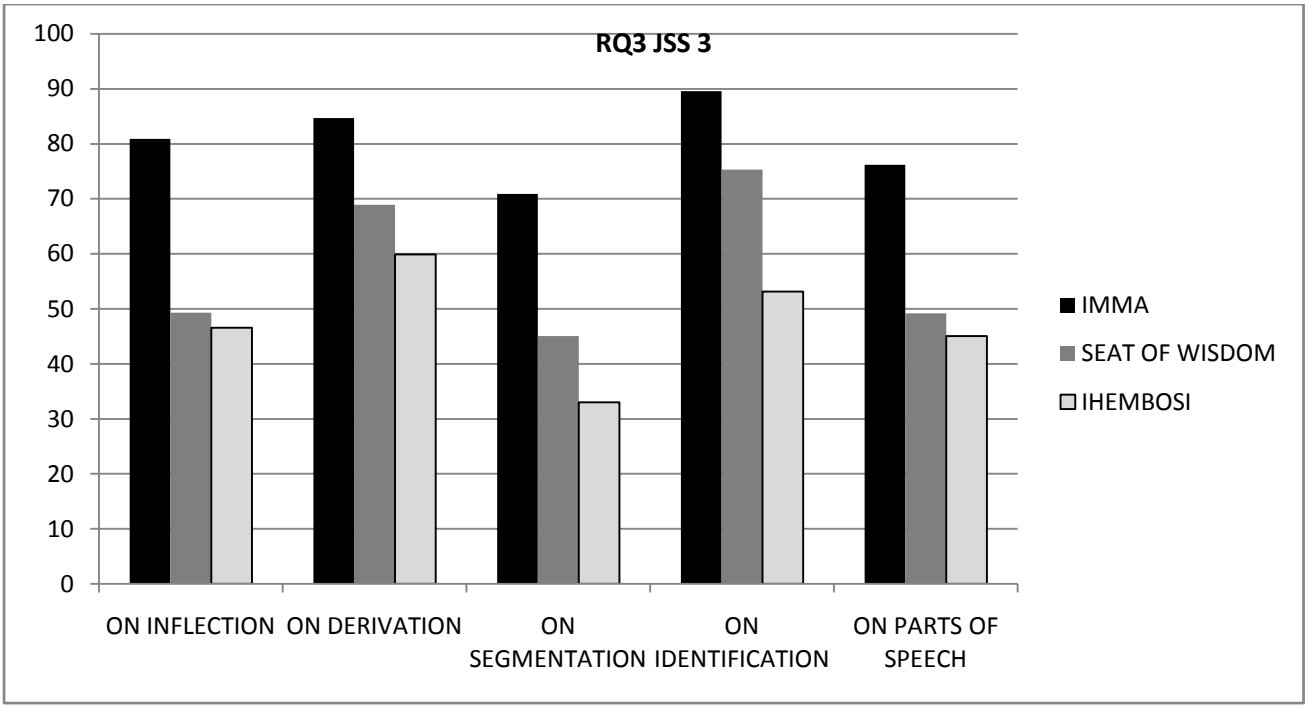


Analysis of Research Question 2

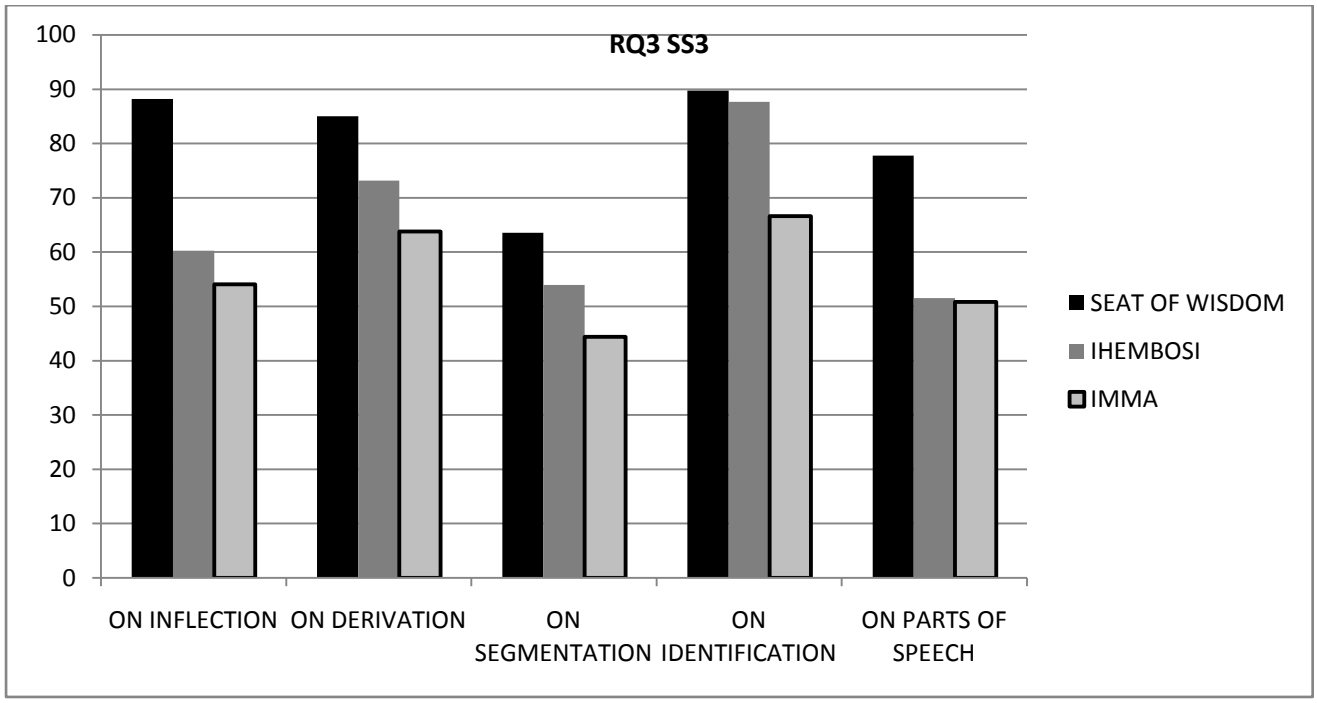
From the average scores of the participants in God's Wisdom International School, Nnewi, it could be observed that the pattern of acquisition was as follows- acquisition of knowledge of inflectional morphemes preceded that of derivational words and this came before the ability to identify morphemes. They learnt to identify morphemes before learning their parts of speech and the last to be acquired was knowledge of segmentation of morphemes. This pattern also was true for pupils of Uhuobo Community Central School,Okija. The major difference was in the fact that participants in God's Wisdom International School, Nnewi performed much better. At age 4-6, users had already acquired significant knowledge of not just the inflectional morphemes but of how to derive words. The big problem they had was in spelling words that undergo not just orthographic but phonological changes in their spellings. From their misspellings, one could discover that they had an idea of what the derivational form or base should be. However, such errors were marked wrong because the study dealt on spelling. A close look at the performances of the participant in other classes from this very school revealed that they received not just adequate lessons on spelling but were also able to retain the knowledge they had acquired. It could be that spelling constitutes its own period of teaching in their timetable. Whatever the case, it was given due attention. Participants in Uhuobo Community Central School, Okija had a most difficult time trying to provide answers to the questions. Theirs was not just a case of misspelling, but of unawareness; most of their answers were un-English words. One could infer, from this, that they had very poor knowledge of morphology. Their performances showed an upward trend but even in primary 6, their mean score was below 50 percent.

Research Question 3

TYPE OF TEST	IMMA	SEAT OF WISDOM	IHEMBOSI
ON INFLECTION	80.92	49.28	46.56
ON DERIVATION	84.68	68.92	59.92
ON SEGMENTATION	70.92	45.08	33.02
ON IDENTIFICATION	89.6	75.32	53.16
ON PARTS OF SPEECH	76.2	49.16	45.04



TYPE OF TEST	SEAT OF WISDOM	IHEMBOSI	IMMA
ON INFLECTION	88.2	60.24	54.04
ON DERIVATION	85.05	73.2	63.8
ON SEGMENTATION	63.56	53.94	44.4
ON IDENTIFICATION	89.72	87.68	66.64
ON PARTS OF SPEECH	77.76	51.56	50.84



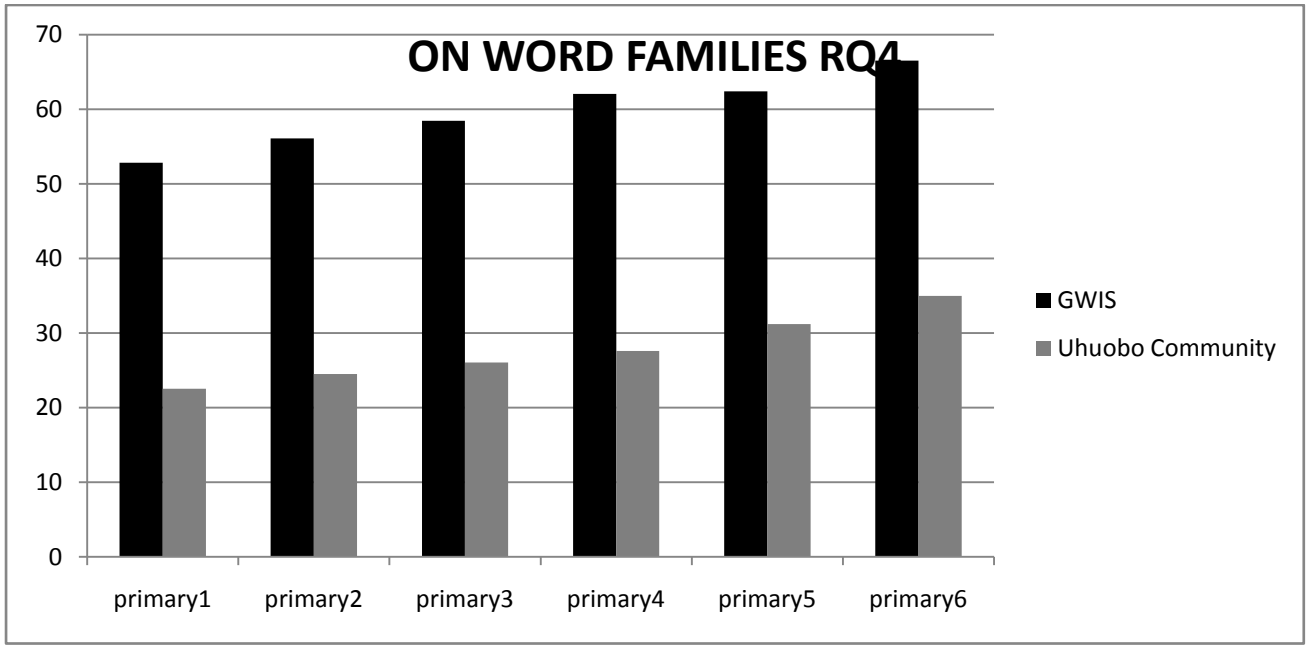
Analysis of Research Question 3

How does this developmental pattern differ fromor correspond with those of JSS and SS3 students? It could be seen from the mean scores that participants in Immaculata Girls' Model Secondary School, Nnewi shared the same pattern of acquisition with their colleagues in Seat of Wisdom Secondary School, Ozubulu. For participants in the former, the average score was 89.66 which is approximately 90 percent for the test on identification of morphemes. This was the test in which they performed best. There was not much difference between their average performances in this test and that on generating derivational forms from base words and providing the base words of some derivational forms; this was because their average score in this test was 84.56 which is approximately 85 percent. The next test in which they performed well was on inflectional morphology. This was followed by the test on knowledge of parts of speech and segmentation of morphemes. It is true that participants in these two schools shared the same pattern of acquisition but it is worthy to mention, as could be seen from the graphs, that participants in Immaculata did far better than Seat of Wisdom participants. Participants in Ihembosi Community Secondary School performed best in the test on generating derivational forms from base words and vice versa. This was followed by another good performance in the test on identification of morphemes. It shared the same pattern with what was obtained from the other schools on the remaining test; that is, their average score on inflectional morphemes test was higher than that of knowledge of parts of speech which was higher than that on segmentation of morphemes. A close look at the performances of participants in the selected primary schools and those in the secondary schools revealed some correspondences as well as differences in the pattern of acquisition. The test appeared in five forms. The two primary schools performed well in this order- test on inflectional morphology, test on derivational

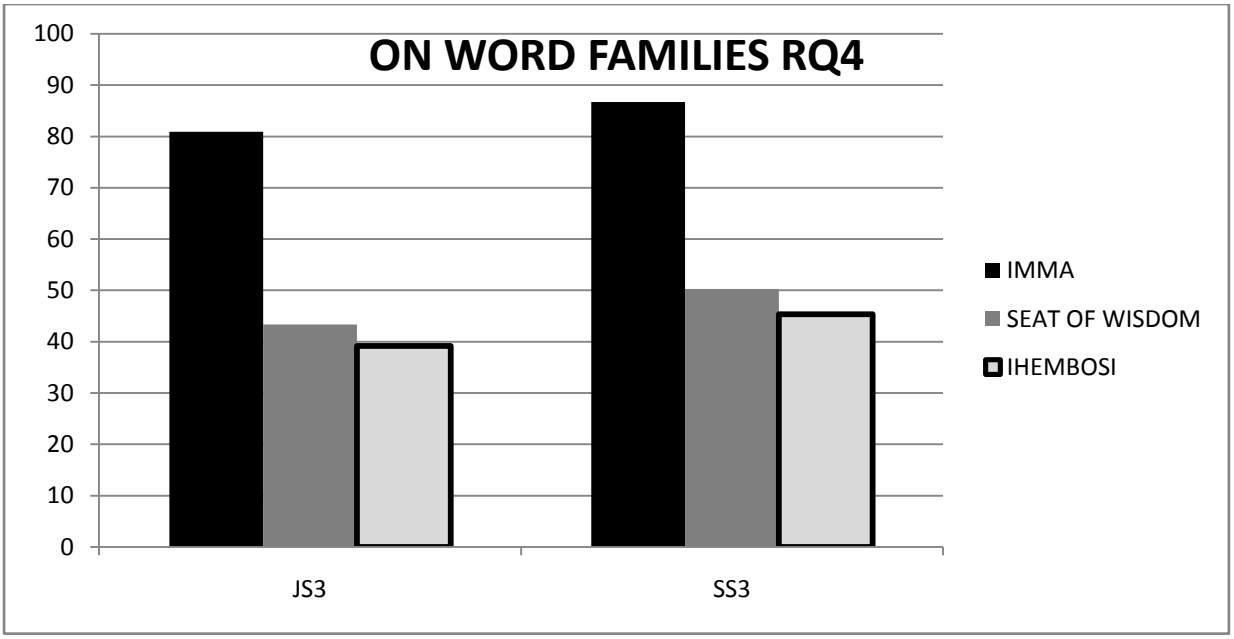
forms and base forms, test on ability to identify morphemes, test on parts of speech and finally on knowledge of segmentation of words into their constituent morphemes. The differences were in the fact that students of Immaculata Girls' Model Secondary School and those of Seat of Wisdom Secondary School performed best in the test on morpheme identification. This was followed by another good performance in test on derivational forms and base forms and then, that on inflectional morphology. On the contrary, God's Wisdom participants and those in Uhuobo Central School, Okija did very well in the test on inflectional morphology. This was followed by another good performance in test on derivational and base forms. The next test in which they did well was on identification of morphemes. Their performances showed some correspondences in that all participants from the five schools shared the same pattern of acquisition for knowledge of parts of speech and segmentation of morphemes. They did better in the former than in the latter. It is true that the patterns showed some differences and overlaps, their mean scores differed significantly in some areas. For example, the mean score of participants in God's Wisdom School for the first part of research question 2 which was a test on inflectional morphology was 76.6percent while that of participants from Seat of Wisdom was 54.76. That of Immaculata Girls' Model Secondary School, Nnewi was 84.56 percent, Uhuobo Central School, Okija 39.3 and Ihembosi Community Secondary school, 50.3 percent. It simply followed that a user acquired very much in primary school, that is, before he or she is 11years old. A similar occurrence repeated itself in some other parts of the tests administered to answer this question. They would be tabulated for a better understanding.

Research Question 4

RQ4	Mean scores	
classes	GWIS	Uhuobo Community
primary1	52.84	22.52
primary2	56.08	24.52
primary3	58.44	26.04
primary4	62.04	27.6
primary5	62.4	31.2
primary6	66.52	35



CLASS	IMMA	SEAT OF WISDOM	IHEMBOSI
JS3	80.88	43.36	39.2
SS3	86.72	50.28	45.36



Analysis of Research Question 4

From the performances of the participants in primary schools, it was quite evident that this was a difficult exercise especially for those in Uhuobo Central School, Okija. Most of them were writing just what they liked. Words which ought to be familiar to them appeared strange. A good number of them were not quite sure of the spellings they provided; they applied a lot of guess work and this was due to inadequate or lack of knowledge of the different uses to which a word could be put. Every class of participants in the upper primary in God's Wisdom School, Nnewi got a mean score that was above 60 percent. This was not too bad. Their fellow pupils in lower primaries did not do badly considering their ages and level of exposure. Each class of participant there had a mean score that was above 50 percent. They performed far better than JS3 and SS3 students of Ihembosi Community Secondary School where the language of communication among students is Igbo. Most teachers equally taught in Igbo, probably to ensure that every student understood what was taught. This is not the case in God's Wisdom School; they speak Igbo only on Fridays and give spelling its due attention. That is the reason why pupils there performed impressively or relatively well but not poorly. Students of Immaculata Girls' Model Secondary School performed impressively; their mean scores were 80.88 and 86.72 for JS3 and SS 3 participants respectively. Those of Seat of Wisdom were 40.36 and 50.28 for JS 3 and SS 3 participants. They had not adequate morphological knowledge and did not perform outstandingly. Morphological knowledge is very important for spelling proficiency. There is no doubt about that.

Analysis of Research Question 5

Morphology cannot be separated from spelling; its mastery would go a long way in improving spellings and writing of users. Practice, they say, makes perfect. If impressive results are desired from these participants, then, adequate period of teaching should be allotted to, not just the English Language but also, spelling. This is in order that some lasting impact could be made on the users. When this is done repeatedly, users could form the habit of referring to their dictionaries always because an awareness has been created in them. This could also reawaken zeal in some others and the influence spreads. Correctness of spellings should be emphasized; this is important because a good number of participants from different schools and in different classes rightly pronounce words. The major problem lies in spelling what they have pronounced. A way out of this could be through administering, dictation exercises, teaching spellings that are rule-based along with the exceptions. Speaking of the English language should be made compulsory on certain days and on those days, teachers should make it a point of duty to correct deviant expressions like wrong use of tenses, articles or concord in sentence making on the assembly ground. It could be at least once in a week. There is much laxity among teachers in public schools; they do not seem to be as hardworking as those in private schools who earn even less. This is partly because there is usually no monitoring team that comes around unannounced to see what is happening in public schools. Take God's Wisdom School, Nnewi for example, the proprietor and proprietress live in the school compound. Besides, they set their offices at strategic positions and every teacher avoids being caught misbehaving or wasting time. There, teachers teach but sometimes, they themselves set the examination question; as a result every teacher strives not just to finish teaching what is in the scheme of work but to ensure that every child understands what is taught. If at the end of

the examination a particular teacher's pupils performed so poorly, the teacher in question either loses her job or becomes a cleaner. Some parents are so keen about speaking the English language but their sentences are fraught with deviant structures. This should be discouraged because it only makes nonsense of the efforts of the teachers at school. Again, it would get the user confused and could also cause unseriousness in him or her. Apart from sentences containing deviant structures, there are too many mispronunciations that have far-reaching implications on the user.

Chapter Five

Discussion of Findings, Recommendations and Conclusion

5.1 Findings

A strong relationship was found between time spent in teaching the English language in private schools where the target language is the language of communication and performances in the tests. Students in private primary and secondary schools performed much better than those in public primary and secondary schools. A significant relationship was also found between the performances of those whose parents speak the target language at home and those whose parents do not. The former group had higher scores than the latter who use the target language occasionally. One can infer from this, that use of the language at home may create increased motivation to study and users in private schools who adopt the language could develop increased motivation to learn formally. Carol notes that the simplest explanation of this finding is that the attainment of a skill in a foreign language is a function of the amount of time spent in its study. (136).

Results from this study reveal that different aspects of knowledge about suffixes are acquired at different times. They reaffirm the hypotheses that children first acquire basic lexico-semantic knowledge of derivational forms, that knowledge of syntactic properties of suffixes may develop slowly and that knowledge of distributional constraints on suffixes is the most advanced level and the last to be acquired.

It is evident that participants have knowledge of morphemic structure but do not fully utilize it in their spelling of base and derivational words.

It was also found out that children learn the parts of speech of derivational words but do not attribute any syntactic property to the suffixes. For example, one could learn that 'impression' is a noun without analyzing the word into stem and suffix.

Children tend to over-generalize the regular pattern of inflection and extend an irregular one to other forms because they cannot retrieve the appropriate form stored in their mental lexicon. It has been shown that choosing a regular or an irregular pattern of inflection for a new lexical item is mainly determined by the grammatical structure of words. The findings support the constructivist idea that a child selects the frequent units from the surrounding linguistic environment.

Rote memorization is the prevalent general acquisition strategy during the pre-morphological period; the inflectional markers are memorized as part of word forms and during this period, the user's speech reveals very few over-generalizations or errors. A child acquires earlier those lexemes and forms that are frequent in the target language.

Again, there are some difficulties users encounter in the course of segmenting certain words; these are problems emanating from morphological analyses. It was found out that second language users improve on their morphological competence in rural areas where there are helpful literate friends who give them corrections. This is how the rural environment is efficiently utilized. Urban areas are usually richer in print than rural areas; users are exposed to them early enough. They ask questions and receive feedbacks which enlighten them. Besides, the use of the English language in daily communication in some quarters helps a great deal. An environment that allows users to communicate in the English language also facilitates acquisition.

5.2 Recommendations

The researcher recommends that teachers be adequately informed about the importance of morphological awareness. They should also be provided with suggestions for instructions that support its development as well as be reminded that their students' reading achievement will be optimized as a result.

Teachers of English language should understand and relate to users the idea that spelling, very often, is not arbitrary but rather corresponds to something real that the user knows and can apply.

Users, on their own part, should be encouraged to look for reasons, morphological or otherwise why words are spelt the way they are.

Spellings have a characteristic which is that they follow certain graphotactic patterns. For example, two vowel or consonant letters sometimes appear in succession in an English word as in 'seen' and 'sell' but three identical letters do not appear.

5.3 Conclusion

From the study conducted, it is evident that some inflectional morphemes are acquired earlier than derivational morphology. Users use derivational words in oral expressions but do not seem to understand how they are formed or in what capacity they function in given sentences. Certain aspects of derivational morphology are quite easy to master while the acquisition of others comes as a user advances in age and gains exposure from texts, environment and learning. In this study ,pupils in primary schools have a better understanding of inflectional morphology than students in secondary schools. From the answers provided by participants in secondary schools, it seemed they have forgotten what they learnt when they were much younger and that was why there was not a significant difference between the performances of primary six pupils and those of JS3 students. The two forms of morphology are acquired almost at the same time in school but the syntactic and distributional knowledge of morphology, that is, knowledge of the functions of morphemes and of what words they could attach to are acquired as the user grows or gets older and advances in class. That was why participants could not perform well in splitting words into their constituent morphemes and stating the part of speech of some derivational words. In tests that bordered on inflections, there were not many challenges; a group of participants in primary school performed wonderfully when compared to the performances of secondary schools' participants.

According to Deacon and Kirby, the number of morphemes in any language is too large for a child to acquire at once. For this reason, the user has to make a selection and focus, first and foremost, on those morphemes that are frequent and salient (230). The

factors facilitating the acquisition of morphemes that are listed in the constructivist approaches of language acquisition largely coincide with the ones listed by Deacon and Kirby. The most frequently mentioned factors include naturalness and salience of a linguistic structure and its frequency in the target language. A print-rich environment sets the tone for ways in which users can discover the relationships between spoken and written language(August & Shanahan 229).Introducing users to words commonly found in the environment such as names of people, places and products is often the best strategy for users to adopt during spelling and remains the most frequently used procedure compared to the other viable spelling strategies available(Gustard & Kelly 273).Hence, they point out that the only way users will learn to be effective spellers is by being immersed in a rich language environment that supports them as readers, offers them many varied opportunities to write and encourages them to explore words and play with them naturally(275).Hence, it is believed that the absence of a print-rich environment may be another factor contributing to the problem of poor spelling skills for users. Formal environments make contributions, in varying degrees, to different aspects of second language acquisition and competence.

Works Cited

Akmajian et al.(5th ed.) *Linguistics: An Introduction to Language and Communication*. New Delhi: Prentice Hall . 2008. Print

Allan,Cruttenden. Gimson's Pronouncing Dictionary of English (7th ed.) London:Hodder Education.2008.Print.

Alutu, John. *Modern English Book for Secondary Classes and Higher Institutions*. Nnewi: Uba Bright Int'l .2000. Print.

Apel, Kenn.& Eve Deihm. *Morphological Awareness Intervention for Kindergarteners, First and Second Grade Students.*Berlin:Springer.2013.Web.

Apel, Kenn. Eve Deihm. & Leo Apel. *Using Multiple Measures of Morphological Awareness to Assess its Relation to Reading.* Malden:Blackwell.2013.Web.

August, Dianne. Margarita Calderon. & Martin Carl. *The Transfer of Skills to English: A Study of Young Learners*.Washington DC: Centre for Applied Linguistics.2002.Web.

August, Dianne. & Thompson Shanahan. *Developing Literacy in Second Language Learners*: *Report of the National Literacy Panel on Language Minority Children and Youth*.New Jersey: Lawrence Erlbaum Associates.2006.Web.

Bauer,Laurie. *Morphological Productivity in Cambridge Studies in Linguistics.*Cambridge: CUP .2001. Web.

Bauer,Laurie. *Introducing Linguistic Morphology*(2nd ed.*)* Washington DC: Georgetown University Press.2003.Web.

Bauer,Laurie. *A Glossary of Morphology*. Washington D C: Georgetown University Press.2004. Web.

Bauman,Pete. *Vocabulary and Reading Comprehension*. New York: Routeledge.2009.Web.

Bauman, James et al .*Teaching and Contextual Analyses to Fifth Grade Students*. Reading Research Quaterly.37.150-176.2002.

Bear, Donald et al. Words *their Way:Word Study for Phonics, Vocabulary and Spelling Instruction* (5th ed.*)* Boston: Pearson.2012. Web.

Beimiller,Andrew. *Teaching Vocabulary Early, Directly and Sequentially*. Lisse: The Peter de Ridder Press. 2001.Web.

Berninger,Virginia et al. *Growth in Phonological, Orthographic and Morphological Awareness in Grades 1to 6*. Journal of Psycholinguistics. 39:141-163.2010:

Berko, Jean. "*The Child's Learning of English Morphology*." *Word*, 14,150-177.

Berninger, Virginia (Ed.) *The Varieties of Orthographic Knowledge:Theoretical and Developmental Issues*. The Netherlands: Kluwer academic, 1994. Print.

Bourassa,Derrick.et al. *"Use of Morphology in Spelling by Children with Dyslexia and Typically Developing Children*." Memory and Cognition,34,703-714.2006.Web.

Bowerman, Melissa. *Reorganizational Processes in Lexical and Syntactic Development in Language Acquisition*: The State of the Art (Gleitman,L and Wanner,E.Eds)319-346.CUP.2001.Web.

Bowers,Peter. John Kirby. & Helene Deacon. *The Effects of Morphological Instruction on Literacy Skills*. Massachussettes: Newsbury House.

Burzio, Luigi. *Case Uniformity*. ms.,John Hopkins University.2000.Web.

Butyniec, Thomas. and Vera Woloshyn. "*The Effects of Explicit Strategy and Whole Language Instruction on Student Spelling Ability*". Journal of Experimental Education 64 .4 (1997).Print.

Bybee ,Joan "*Morphology. A Study of the Relation between Meaning and Form*. Amsterdan: John Benjamins .1995. Print.

Calderon, Margarita et al. *Bringing Words to Life in Classrooms with English Language Learners* in Hiebert Alfreda & Michael Kamil(eds.) *Research and Development on Vocabulary* New Jersey: Lawrence Erlbaum.2005.Web.

Carlisle, Joanne. *Morphological Processes that Influence Learning to Read*.New York:Guildford Press. 2004.Web.

Carlisle,Joanne & Amanda Goodwin. *Morphemes Matter: How Morphological Knowledge Contributes to Reading and Writing*. New York: Guildford.2013.Web.

Carlisle,Joanne & Jane Flemming. *Lexical Processing of Morphologically Complex Words in the Elementary Years*. Cambridge: MIT Press. Web.

Carlisle,Joanne & Addison Stone. *Exploring the Role of Morphemes in Word Reading*. London:Academic Press.2005. Web.

Carlisle,Joanne. *"An Integrative Review of the Effects of Instruction in Morphological Awareness and Literacy Achievement*". Reading Research Quaterly 45 (4) 464-487 2010.

Casalis,Severine,,Peter Cole. & Sopo,Delphine. *Morphological Awareness*. New York:Holt.2004.Web.

Cataldo, Suzanne. and Nick Ellis. "*Learning to Spell, Learning to Read*" in P.D. Puffery and Elliot,C.D. (Eds.*) Children's Difficulties in Reading, Spelling and Writing*. Wiltshire: The Palmer Press. 1990. Print

Carlisle, Joanne. & Addison Stone. "*Exploring the Role of Morphemes in Reading*" Reading Research Quarterly, 40.4 (2010): 428-449. Print.

---." *Awareness of the Structure and Meaning of Morphologically Complex Words: Impact on reading*". Reading and Writing. 12.2 (2000): 169-190. Print.

---."*Mastery of the Conventions of Suffixation by Good and Poor Spellers*. A paper presented at the New York Dyslexia society conference, New York.2000.

---. *Morphological Awareness and Early reading Achievement*. New Jersey: Lawrence Erlbaum Associates. 1995. Print.

Chliounaki,Kalliopi & Peter Bryant. *How Children Learn about Morphological Spelling Rules*. Cambridge: CUP .2007.Web.

Chomsky, Carol. "*Reading, Writing and Phonology*". Harvard Educational Review 40. 2(2009)287-309. .

Chukwu, Ephraim. *Word Formation & Structure*. Enugu: John Jacobs Classic Publishers. 2007. Print.

Clahsen,Harald."*Morphological Structure and the Processing of Inflected Words"*. Theoretical Linguistics 23.201-249..1997.Web

Clark, Helen & Eve Clark, *Psychology and Language*: *Introduction to Psycholinguistics*. New York: Harcourt Brace and Janovavich.1991.Print.

Connor, Michael et al. *Testing the Impact of Child Characteristics on Reading Comprehension*. Reading Research Quaterly 46. 189-221.2011.Web.

Cruttenden,Allan. *Gimson's Pronunciation of English* (7th ed.) London: Hodder Education. 2008.Print.

Dabrowska, Ewa & Szczerbinski Marcin. *Polish Children's Productivity with Case Marking*: *The Role of Regularity, Type Frequency and Phonological Diversity*. *Journal of Child Language*. 33.559 – 597. 2006. Web.

Deacon,Stephen& John Kirby. *The Role of Morphological And Phonological Awareness in Reading Development*.Washington D C: Gallaudet University Press. 2004.Web.

Deacon, Stephen et al.*The Representation of Roots in the Spelling of Children*.Philadelphia: John Benjamins. 2013.Web.

Derwing, Bruce. "*Morpheme Recognition and the Learning of Rules for Derivational Morphology*". Canadian Journal of Linguistics, 21.6(34).2009.Print.

Dixon, Robert & Alexandra Aikenvalds. *Word: A Cross-Linguistic Typology*.Cambridge: CUP.2007.Web.

Dixon, Wallace & Hull Smith. "*Links between Temperament and Language Acquisition*" s 46(2000) 417 – 440.

Dressler, Wolfgang . *Typological Approach to First Language Acquisition* in Michele Kail & Maya Hickmann (Eds.) *Language Acquisition Across Linguistic and Cognitive Systems*.109 – 124. Amsterdam: Benjamins. 2010. Web.

Dressler,Wolfgang and Annemarie Karpf. *"The Theoretical relevance of Pre and Protomorphology in Language Acquisition*" Yearbook of Morphology. 99-122.1994. Web

Dryer, Mathew. "*Prefixing versus Suffixing in Inflectional Morphology* in Martin, Haspelmath et al. *The World Atlas of Language Structures*. 110 –114. Oxford: OUP. 2005. Web.

Echols,Catharine. & Nathan Martin. *The Identification of Words and their Meanings:From Perceptual Biases to Language-Specific Cues*. Camdridge: MIT Press. 2004.Web.

Ehri, Linnea. "*Learning to Read and Spell Words*" Journal of Reading Behaviour. 19.1(22). 2007.Web.

---"*How English Orthography Influences Phonological Knowledge as Children Learn to Spell and Read*. New Jersey: Erlbaum. 1993. Web.

---"*Learning to Read and Learning to Spell are One and the Same Almost*. New Jersey. Erlbaum. 1992 .Web.

Fried,P. and J. Baron. "Individual Differences in Acquisition of Derivational Morphology". *Journal of Verbal Learning and Verbal Behaviour*.21,282-295.2000. Web.

Friedline, Benjamin and Alfred Juffs. *L1 Influence, Morphological(In)Sensitivity and L2 Lexical Development :Evidence from Production Data.* University of Pittsburgh, PA.2000.Web.

Gabig, Cheryl.& Ellis Zaretsky. *Promoting Morphological Awareness in Children with Language Needs*. Edinburgh: Edinburgh University Press.2013.Web.

Goodwin,Amanda & Seunkiri Ahn. *A Meta-Analysis of Morphological Interventions:Effects on Literacy Achievements of Children*. London:MIT Press.2010.Web.

Goodwin,Amanda. John Gilbert.& Suzanne Cho. *Morphological Contributions to Adolescent Word Reading*. Reading Research Quaterly. 48(1)39-60. 2013.Web.

Goswami, Arnab. ": *A Cross linguistic Orthography, Phonology and Reading Development Perspective*" in R. Malatesh. Joshi and P.G. Aaron (Eds.) *Handbook of Orthography and Literacy*. New Jersey: Lawrence Earlbaum Associates. 2006.Web.

Greenbaum, Sydney. *The Oxford English Grammar. Oxford*: OUP. 1996. Print.

Groff, Patrick. "*The Implications of Developmental Spelling Research: A Dissenting View*." The Elementary School Journal 86(3) 1986 Print.

Green, David. *"Control, Activation and Resources: A Framework and Model for The Control of Speech Bilinguals*". Brain and Language 27.1 (1986) 210-223.Print.

Hanna, Paul et al. *Spelling Structure and Strategies*. Boston: Honghton Mifflin. 1971. Print.

Haastrup, Kirsten. "*The Learner as Word Processor*" AILA Review 62.1 (1989) 34 - 46.Web.

Harris, Merrill Schumaker Lynch Joel & David Deshler. *The Effects of Strategic Morphological Analysis Instruction on the Vocabulary Knowledge of Secondary Students*. Reading research Quaterly. 34,17-33. 2011.Web.

Haspelmath,Martin. *Understanding Morphology*. London:Oxford University Press.2002.Web.

Helman,Lori et al.*Words:Their Way with English Learners*(2nd ed.).Boston:Pearson.2012.Web.

Herrera,Silvia. Ron Perez & Kirsten Escamilla. *Teaching Reading to English Language Learners*.Boston: Allyn & Bacon. 2010.Web.

Ingram,David. *First Language Acquisition, Method Description and Explanation*. Cambridge: CUP. 2001. Web.

Jackendoff,Ray. *Meaning and the Lexicon*.Oxford:OUP.2010.Web.

Jarmulowicz,Linda. *"School-aged Children's Phonological Production of English Words*." Journal of Speech,Language and Hearing Research. 49(2)294-308.2000.Web

---. *Structure, Process and Development*. 33(1).57-72.Wilson:The NFER-Nelson Publishing Company.2002.Web.

Joshi, et al. "*How Words Cast their Spell: Spelling is an Integral Part of Learning the Language, not a Matter of Memorization*". American Educator 32 (4), 6-16.2002.Web.

Keifer, Michael & Nonie Lexaus. "*Breaking Down Words to Build Meaning*": *Morphology, Vocabulary and Reading Comprehension in the Urban Classroom* 61.2:133-144.2000.Web.

--- *The Role of Derivational Morphological Awareness in the Reading Comprehension of English Language Learners*. An Interdisciplinary Journal 2008. & 783-804.

--- *Effects of Academic Language Instruction on Relational and Syntactic Aspects of Morphological Awareness*. Dordrecht: Kluwer Academic Publishers. 2012.Web.

Ladiere,Donald. "*Some Thoughts on the Contrastive Analysis of Features in Second Language Acquisition*". Second Language Research, 25,173-227.2009.Web.

Langacker, Ronald. *Morphology and the Lexicon*. Oxford: OUP. 2009. Print.

Larsen-Freeman, Diannie. "*An Explanation for the Morpheme Acquisition order of Second Language Learners*" Language Learning. 26 (1976) 125-134. Print.

Lems, Kristin, Leah Miller & Tenena Soro. *Teaching Reading to English Language Learners:Insight from Linguistics*.New York: The Guildford Press.2010.Web.

Liberman, Isabelle. et al. "*Orthography and the Beginning Reader*" in Jan, Kavanaugh & Mameli,Mattoe & Patrick Baleson. *An Evaluation of the Concept of Innateness*. New York: Routeledge.2011.Web.

Maratsos, Michael. "*The Acquisition of Grammar*". A Handbook of Child Psychology. 2(1998)421-466.Web.

Marinova-Todd,Stefka. Linda Siegel & Silvia Mazabel. *The Association between Morphological Awareness and Literacy in English Language in Learners from Different Language Backgrounds.*Amsterdam: Benjamin Publishers. 2013.Web.

McCutchen,Deborah et al. *Putting Words to Work: Effects of Morphological Instruction on Children's Writing*. Amsterdam: Benjamins. 2013.Web.

McCutchen,Deborah. Bekky Logan & Ulrike Biangardi-Orpe. *Making Meaning: Children's Sensitivity to Morphological Information during Word Reading*.Reading Research Quarterly 44. 360-376. 2009.

McGilvray, James. *The Cambridge Companion to Chomsky*. Cambridge: CUP 2005.Web.

Meara, Patrick. & Gloria Jones. *Tests of Vocabulary Size in English as a Second Language*. Omaha, NE:Boys' Town.2001.Print.

Melcuk,Igor. *Aspects of the Theory of Morphology*.Berlin: Mouton.2006.Web.

Moats, Louisa. *Speech to Print: Language Essentials for Users*. Baltimore:Brooks. 2000. Web.

Mommers, Martin. *"An Investigation into the Relation between Word Recognition Skills, Reading Comprehension and Spelling Skills*." Journal of research in Reading. 10.2 (2004) 123 -139. Web

Moseley, David. "How *Lack of Confidence in Spelling Affects Children's Written Expressions*. New Zealand: New Zealand Council of Educational research. 1993. Web

Muter, Val. and Margaret Snowling. *Grammar and Phonology Predict Spelling in Middle Childhood*: *Reading and Writing.* Interdisciplinary Journal.9.2.407-925.2001.Web.

Nagy, William & Virginia Berninger. *" Contributions of Morphology beyond Phonology to Literacy Outcomes of Upper Elementary and Middle School Students*". Journal of Educational Psychology, 98.3 (2006) 134 – 147.Print

Napps, Shirley & Carol Fowler. *" Formal Relationship among Words and the Organization of the Mental Lexicon*". Journal of Psychololinguistic Research 16.2 (2007) 257 – 272.2003. Web.

Newmeyer, Frederick. *Grammar is Grammar and Usage is Usage*. Massachussettes: Blackwell.2003. Web.

Nduka, Dennis. "*Teachers*' *Perception of Reading Comprehension and Comprehension Tasks at the Pre -University Level*".Unpublished Ph,D Dissertation.1991.Print.

Nunes,Terezinha. Paul Bryant & Jan Olsson. *Learning Morphological and Phonological Spelling Rules*. New Jersey: Erlbaum Associates. 2003.Web.

Owen, Richards. *Language Development: An Introduction* (5th ed.) Massachussettes: Allyn and Bacon.2001.Web.

Pacheco, Martin. & Amanda Goodwin. *Morphological Problem Solving Strategies for Unknown Words*. Illinois: North Western University Press.2013. Web.

Perfetti, Charles. "*The Psycholinguistics of Spelling and Reading*":*Learning to Spell. Research, Theory and Practice across Languages*, New Jersey: Lawrence Erlbaum Associates. 1997. Print.

Penke, Martina. "*The Dual mechanism Debate* in Marcus Werning et al. *The Oxford handbook of Compositionality*. 574-595. Oxford :OUP. 2012. Web.

Pinker, Steven. *Rules of Language Science* 25.3 (1987) 530 – 535.Web.

---. *Words and Rules*. New York: Basic Books. 1999. Web.

---.The Language Instinct: *How the Mind Creates Language*.Harper Perennial Modern Classics: London. 2007.Web.

Ramirez,Gloria, Becky Chen-Bumgardner.& Anna Pasquarella.. *A Cross-Linguistic Transfer of Morphological Awareness in Second Language Learners*: *The Facilitating Effect of Cognate Knowledge*. New Jersey: Erlbaum.2013.Web.

Read, Charles. "*Pre-School Children's Knowledge of English Phonology*". Harvard Educational Review 41 (2000) 1-34. Print.

Rubin, Hyla. Andrew Patterson. & Mickey Kantor. *Morphological Development and Writing Ability in Children and Adults*. Los Alamitos, CA: Modern Sign Press.2009.Web.

Scarcella, Robins. *Accelerating Academic English:A Focus on the English Learner*.Hillsdale: Erlbaum.2003.Web.

Seidenberg, Mark. & James McClelland. "*A Distributed Developmental Model of Word Recognition and Naming*" Psychological Review 96(2000) 447 – 452 Web.

Singson,Mangkhollen. Dennis Mahoney & Van Mann. *The Relation between Reading Ability and Morphological Skills: Evidence from Derivational Suffixes*. An Interdisciplinary Journal,12. 219-252. 2000.Web.

Stump, Gregory. *Inflectional Morphology:A Theory of Paradigm Structure*. Cambridge:CUP.2001.Web.

Taft, Marcus. and Kenneth Forster. "*Lexical Storage and Retrieval of Prefixed Words*". Journal of Verbal Learning and Verbal Behaviour. 14.3 (2000) 638-647. Print.

Templeton, Share. "*Using the Spelling Connection to Develop Word knowledge in Older Students*". Journal of Reading 27.3 (1992) 8 – 14. Web.

---. *The Spelling – "Vocabulary Connection ,Orthographic Development and Morphological Knowledge at the Intermediate Grades and beyond*". Research to Practice. 118 – 138 New York: Guildford Press. 2004.Web.

---*"Teaching and Learning the English Spelling System: Reconceptualizing Method and Purpose.*"Massachussettes : Pearson. 1991. Print.

Tomasello,Michael. *First Verbs:A Case study in Early Grammatical Development*. Cambridge :CUP.1992. Web.

---. *The Item-Based Nature of Children's Early Syntactic Development*. Oxford:Blackwell. 2001 .Web.

---. *Constructing a Language: A Usage-Based Theory of Language Acquisition*. Cambridge: Harvard University Press.2003. Web.

Tyler, Andrea. *Acquisition and Use of Derivational Morphology*: *An Experimental* I*nvestigation*. University of Iowa.Web.

Tyler, Andrea. and William Nagy. "*The Acquisition of English Derivational Morphology"*. Journal of Verbal Learning and Verbal Behaviour, 14, 2 (2001) 638-647. Web.

Veraoeven, Ludo. & Charles Perfetti. The Role of Morphology in Learning to Read. Chicago: Chicago University Press.2011.Web.

Voeikova, Maria and Wolfgang Dressler. *Pre and Protomorphology:Early Stages of Morphological Development in Nouns and Verbs*. Munchen:Lincom Europa.Web.

White, Stephen. *Second Language Acquisition and Universal Grammar*. Cambridge: CUP. 2003. Web.

Wilson, Stephen. *Lexically Specific Constructions in the Acquisition of Inflections in English*. Journal of Child Language 30.2. 2001.Web.

Woter,Julie. & Laura Green. *Morphological Awareness Intervention in School-Aged Children*. Reading Research Quaterly 33(1),27-41.

Wray,Alison. *Formulaic Language and the Lexicon*.Cambridge: CUP. 2002.Web.

Wysocki, Kathe.& Joseph Jenkins. "*Deriving Word Meaning through Morphological Generalization*". Reading Research Quarterly 22.3 (1999) 66-81. Web.

Appendices

Research Question 1

Fill each of the gaps in these sentences with the appropriate form of the word in bracket. Example 1 has been done for you.

My belt is <u>longer</u> than yours. (long)

1. On my way to school, I saw two _____ lying on the ground. (orange) -oranges.
2. Ukamaka _____ at functions. (dance)- dances
3. Ikeh is the _____ of the three friends. (short)- shortest
4. I saw him when he was _____ to school. (go)- going.
5. Have you _____ my wrapper? (see)- seen
6. Daddy has _____ the remaining wine. (drink)- drunk
7. Can you see some birds _____ in the air? (fly)- flying
8. Udeh _____ Igbo better than the English language. (understand)- understands
9. I guess that my knife is _____than his. (sharp)- sharper
10. Ada is the _____ of all the contestants. (beautiful)- most beautiful
11. Our townspeople enjoy _____ all day. (farm)- farming
12. Who _____ my name on the board? (write) – writes
13. They have _____ the offender to court. (charge)- charged
14. There are so many _____ in the garden. (flower)- flowers
15. _____ handbag is missing. (Igene) – Igene's
16. Omo always _____ the truth. (tell)- tells
17. I can see the gaps are now _____. (wide)- widening
18. People know that he is the _____ .candidate for the position. (good)- best
19. She has been thoroughly _____. (examine)- examined
20. She sees _____ as a hobby. (dance)- dancing

21. It was I who _____ you, my dear. (see)- saw

22. How many _____ are there in a group? (dancer)- dancers

23. The biro on the floor is _____ (Uzo)- Uzo's

24. A diligent man _____ very hard. (work) – works

25. Aka is _____ than Okwy. (intelligent)- more intelligent

26. Omalicha has been declared the _____ presenter. (good)- best

27. Did you observe that Mma has been _____ since last week? (fast)- fasting

28. We _____ far into the night because we were overjoyed. (sing)- sang

29. The armed robber was _____ by the villagers. (beat)- beaten

30. There were eleven _____ in the circus this morning. (ox)-oxen

31. Please collect your key from the _____ (Vincent)- Vincent's

32. A stitch in time, they say, _____ nine. (save)- saves

33. Her teeth are quite _____than his. (bright)- brighter

34. Okaka is the _____ boy in that class. (neat)- neatest

35. I am _____ to the market to buy some fruits. (walk)- walking

36. I _____ of your intention to withdraw this morning. (learn)- learnt

37. May we know what you have _____.(decide)- decided

38. My grandmother has many _____. (sheep)- sheep

39. We were invited to eat _____ leg. (cow)- cow's

40. One _____ to be very careful. (need)-needs

Give the comparative and superlative forms of the following words:

	Positive	Comparative	Superlative
41.	Weak	weaker	weakest
42.	Healthy	healthier	healthiest
43.	Sober	more sober	most sober

44. Slim	slimmer	slimmest
45. Thin	thinner	thinnest
46. Large	larger	largest
47. Brave	braver	bravest
48. Courageous	more courageous	most courageous
49. Wise	wiser	wisest
50. Cool	cooler	coolest
51. Soft	softer	softest
52. Ugly	uglier	ugliest
53. Slow	slower	slowest
54. Dry	drier	driest
55. Strong	stronger	strongest
56. Tender	more tender	most tender
57. White	whiter	whitest
58. Wild	wilder	wildest
59. Corrupt	more corrupt	most corrupt
60. Sensible	more sensible	most sensible

Provide the past tense and past participle forms of the following words:

Present	past	past participle
61. Go	went	gone
62. See	saw	seen
63. Drive	drove	driven
64. Park	parked	parked
65. Show	showed	shown
66. Sing	sang	sung

67. Try	tried	tried
68. Sweep	swept	swept
69. Study	studied	studied
70. Swim	swam	swum
71. Burn	burnt	burnt
72. Cry	cried	cried
73. Play	played	played
74. Shout	shouted	shouted
75. Wrap	wrapped	wrapped
76. Celebrate	celebrated	celebrated
77. Honour	honoured	honoured
78. Wield	wielded	wielded
79. Prove	proved	proven
80. Scold	scolded	scolded

Write down the plurals of the following words:

Singular	Plural
81. Shop	shops
82. Basket	baskets
83. Choice	choices
84. Night	nights
85. Grass	grass
86. Monkey	monkeys
87. Baby	babies
88. Shelter	shelters
89. House	houses

90. Apartment apartments

Provide the correct form of the underlined word that suitably fills the gap in each of the following sentences:

91. This is paint. Mr. Okoh is _____ the wall with it. –painting

92. Uche danced yesterday and now she is _____ again. –dancing

93. They attended a party two weeks ago. They will be _____ another this evening. – attending

94. We use knives to cut. As you can see, I am _____ some vegetables.- cutting

95. Children should not play often. I always see Chika _____ in the field when others are not. – playing

Choose from each bracket the option that suitably fills the gap in each sentence.

96. None of the boys _____ what to do. (know, knows)

97. The single parent _____ good care of her child. (take, takes)

98. He _____ us on what to choose. (advise, advises)

99. Uzo _____ better than Amaka. (sings, sing)

100. He _____ a large debt which he cannot pay. (owe, owes)

Tabulation of Scores

Research Question I: On knowledge of inflection

GWIS Primary 1 Pupils' Scores

60	65	65	69	70	66	68	71	63	65
74	71	70	71	69	71	69	73	74	67
60	70	64	68	70	73	67	74	67	70
71	69	65	71	73	72	68	69	62	64
68	72	70	65	66	69	70	71	73	60

class mark	60	62	63	64	65	66	67	68	69	70	71	72	73	74
Freq	3	1	1	2	5	2	3	4	6	7	7	2	4	3
Total	180	62	63	128	325	132	201	272	414	490	497	144	292	222

Mean score = 3422/50 = 68.44

Primary 2 Pupils' Scores

66	70	70	72	69	72	70	74	70	74
71	72	74	69	71	77	72	78	77	75
79	79	69	70	79	72	69	74	75	76
70	74	70	79	77	76	70	74	79	70
70	76	78	79	71	76	78	70	69	77

class mark	66	69	70	71	72	74	75	76	77	78	79
frequency	1	5	11	3	5	6	2	4	4	3	6
Total	66	345	770	213	360	444	150	304	308	234	474

Mean score = 73.36

Primary 3 Pupils' Scores

69	78	79	75	77	73	78	69	76	74
80	80	80	78	75	77	78	81	81	81
78	79	69	74	78	71	77	74	73	78
78	81	79	76	77	79	74	81	81	81
76	75	80	71	81	69	76	71	78	74

class mark	69	71	73	74	75	76	77	78	79
frequency	4	3	2	5	3	4	4	9	4
Total	276	213	146	370	225	304	308	702	316

Mean score=3828/50 = 76.56

Primary 4 Pupils' Scores

70	79	78	79	80	80	81	75	84	77
72	81	74	80	75	84	80	82	78	74
78	79	78	82	78	76	75	76	76	84
80	79	83	74	83	81	83	82	76	74
79	84	79	80	75	75	77	78	79	77

class mark	70	72	74	75	76	77	78	79	80
frequency	1	1	4	5	4	3	6	7	6
Total	70	72	296	375	304	231	468	553	480

Mean score=3923/50 = 78.46

Primary 5 Pupils' Scores

85	84	81	78	85	80	79	84	79	80
74	85	78	83	80	81	85	76	85	75
79	75	79	81	79	80	79	83	79	80
75	84	79	83	78	84	80	79	80	73
81	79	85	79	85	81	85	79	84	79

class mark	73	74	75	76	78	79	80	81	83
frequency	1	1	3	1	3	13	7	5	3
Total	73	74	225	76	234	1027	560	405	249

Mean score = 4023/50 = 80.46

Primary 6 Pupils' Scores

73	84	86	84	80	86	80	84	86	82
80	75	79	81	84	79	85	78	80	85
86	79	75	85	79	85	80	82	82	78
79	81	80	80	82	82	84	78	85	86
81	86	81	86	85	86	84	86	84	76

class mark	73	75	76	78	79	80	81	82	84
frequency	1	2	1	3	5	5	5	5	4
Total	73	150	76	234	395	400	405	410	336

Mean score = 4189 /50 = 83.78

Uhuobo Community Central School, Okija Primary 1 Pupils' Scores

27	21	27	28	19	21	28	22	19	27
19	17	19	19	24	14	18	1	18	15
24	21	22	19	14	17	27	14	19	19
15	29	18	14	19	17	18	27	18	22
28	22	27	18	27	23	19	27	19	28

Class mark	14	15	17	18	19	21	22	23	24	27	28	29
Freq	4	2	3	6	11	3	4	1	2	8	4	2
Total	56	30	51	108	209	63	88	23	48	216	112	58

Mean score=1062/50 =21.24

Primary 2 Pupils' Scores

14	18	28	24	30	18	20	15	20	18
21	24	15	28	19	30	28	24	30	30
15	18	28	30	24	30	18	20	18	21
20	20	31	20	31	21	30	28	30	27
18	28	18	20	16	24	20	18	26	21

Class mark	14	15	16	18	19	20	21	24	26	27	28	30	31
Frequency	1	3	1	9	1	8	4	5	1	1	6	8	2
Total	14	45	16	162	19	160	84	120	26	27	168	240	62

Mean score=1143/50= 22.86

Primary 3 Pupils' Scores

30	31	36	33	37	30	35	36	31	31
38	38	42	42	38	38	42	42	38	36
42	42	30	42	32	38	35	32	30	38
31	37	38	31	38	36	42	38	42	38
36	31	33	35	35	31	37	33	36	32

Class mark	30	31	32	33	35	36	37	38	42
Frequency	4	7	3	3	4	6	3	11	9
Total	120	217	96	140		213	111	418	378

Mean score=1792/50 = 35.84

Primary 4 Pupils' Scores

42	44	43	48	48	41	44	43	41	42
43	48	50	42	44	50	46	46	46	44
44	50	38	44	50	40	43	46	40	50
44	43	50	50	50	50	50	50	50	43
38	44	48	40	48	39	44	44	48	40

Class mark	38	39	40	41	42	43	44	46	48	50
Frequency	2	1	4	2	3	6	10	4	6	12
Total	76	39	160	82	126	258	440	184	288	600

Mean score=2253/50 = 45.06

Primary 5 Pupils' Scores

42	46	46	42	45	49	43	45	46	42
45	49	51	50	51	50	51	52	50	50
45	50	50	43	52	46	52	45	52	46
49	42	51	50	51	52	51	52	43	50
43	47	46	45	49	45	42	49	50	45

Class mark	42	43	45	46	49	50	51	52
Frequency	5	4	8	7	5	9	6	6
Total	210	172	360	322	245	450	306	312

Mean score=2377/50 = 47. 54

Primary 6 Pupils' Scores

44	49	50	50	49	44	52	50	48	49
50	52	52	52	52	52	49	52	50	50
49	50	44	49	50	48	49	51	44	49
42	50	52	43	52	48	51	52	51	50
48	49	51	50	49	52	51	43	49	43

Class mark	42	43	44	48	49	50	51	52
Frequency	1	3	4	4	11	9	7	11
Total	42	129	176	192	539	450	375	572

Mean score=2457/50 = 49.14

Immaculata Girls' Model Secondary School JSS 3 Students' Scores

77	86	81	90	80	79	89	86	83	85
91	89	91	89	86	92	83	81	89	89
91	83	86	81	77	86	90	89	86	77
86	92	78	90	91	89	90	79	89	89
89	81	91	89	79	86	83	86	77	86

class mark	77	78	79	80	81	83	85	89	89
frequency	4	1	3	1	4	4	1	10	11
Total	302	78	237	80	324	332	85	860	999

Means scores = 4302 / 50 = 86.04

Immaculata Girls' Model Secondary School SS3 Students' Scores

95	88	89	92	92	95	87	95	93	92
89	85	90	88	89	89	90	87	88	88
92	88	87	95	88	87	89	89	90	90
88	89	85	88	89	95	92	90	92	85
95	90	92	93	90	91	88	96	89	90

Class mark	85	87	88	89	90	91	92	93	95
Frequency	2	4	9	9	8	1	7	2	6
Total	170	348	792	801	720	91	644	186	570

Mean score=4322/50 = 86.44

Community Secondary School, Ihembosi JSS 3 Students' Scores

49	55	63	60	55	49	54	49	54	49
56	63	56	53	61	55	60	56	56	55
61	56	52	60	49	54	52	60	54	54
55	61	55	56	56	64	59	49	60	60
49	55	54	49	54	53	52	56	55	54

Class mark	49	52	53	54	55	56	59	60	61	63	64
Frequency	8	4	2	7	8	8	1	6	3	2	1
Total	392	208	106	378	440	448	59	360	183	126	64

Mean score=2764/ 50= 55.28

Community Secondary School, Ihembosi SS 3 Students' Scores

63	75	63	75	57	62	59	59	62	74
75	57	74	73	62	73	57	68	68	78
63	74	63	57	72	57	57	63	63	73
75	74	75	73	51	78	73	78	67	74
57	75	60	73	63	68	66	62	63	63

Class mark	57	58	59	60	62	63	66	67	68
Frequency	7	7	2	9	4	9	5	4	3
Total	399	406	118	240	248	567	330	268	204

Mean score=2800/ 50 = 56

Seat of Wisdom, Ozubulu JSS 3 Students' Scores

54	60	62	60	58	60	57	60	58	58
68	67	69	69	58	55	69	67	54	61
60	58	62	60	64	64	62	60	69	68
62	69	60	64	54	59	54	54	64	67
62	60	57	58	62	61	58	64	61	69

Class mark	54	55	57	58	59	60	61	62	64	67	68	69
Frequency	5	1	2	7	1	9	3	6	5	3	2	6
Total	270	55	114	406	59	540	183	372	320	201	136	414

Mean score=3070 / 50 = 61.4

Seat of Wisdom School SS3 Students' Scores

80	63	56	80	60	61	74	56	63	80
78	60	78	66	63	78	75	75	60	75
60	78	77	78	77	56	80	65	77	60
77	63	66	59	69	77	74	77	75	77
56	60	80	66	77	63	60	56	63	80

Class mark	56	59	60	61	63	65	66	69	74
Frequency	9	9	7	6	6	5	3	4	2
Total	504	531	420	366	378	325	198	376	148

Mean score=3146/50 = 62.92

Research Question 2: Part One

From the options in each bracket choose the word that suitably fills each gap.

1. May I know who _____ your home work for you? (do, does)
2. Last night, it _____ heavily. (rains, rained)
3. I know she _____ mangoes and not cashew in Eke market. (sell, sells)
4. Ike is always _____ than Somadina. (happy, happier)
5. My laptop is _____ than yours. (better, good)
6. Osawewe is _____ than Oyemwen. (worse, worst)
7. That was my _____ moment in life. (best, better)
8. I have _____ an affidavit. (swore, sworn)
9. Have you _____ your salary for the month of August ? (received, receive)
10. You have _____ me a lot of trouble. (caused, caused)
11. There are three _____ in our class. (window, windows)
12. God _____ us wherever we are. (see, sees)
13. I am _____ to make a report to the principal. (going, gone)
14. It is a pity that nobody _____ my story. (believed, beleived)
15. The bursar _____ her signature on every document. (appends, append)
16. Hurray, my daddy bought me two _____ .(bag, bags)
17. She always _____ out on people. (walks, walk)
18. Between Uche and Ada who is _____. (wisest, wiser)
19. You are the _____ thing that has ever happened to me. (best, better)
20. I felt so _____ when I saw you here. (honour, honoured)

Give the continuous tense, past tense and past participle forms of the following verbs.

Verb	Continuous tense	Past tense	Past participle
21. Strike	striking	struck	stricken
22. Shake	shaking	shook	shaken
23. Weed	weeding	weeded	weeded
24. Leave	leaving	left	left
25. Crawl	crawling	crawled	crawled
26. Shed	shedding	shedded	shedded
27. Doubt	doubting	doubted	doubted
28. Trust	trusting	trusted	trusted
29. Shine	shining	shone	shone
30. Delay	delaying	delayed	delayed

Underline the correct option in each of the brackets.

31. My dictionary is more advanced than _____ (Uzo, Uzo's)

32. There are seven _____ in Africa, you know. (rivers, river)

33. He _____ his fees rather late. (pays, pay)

34. The principal _____ every latecomer. (flog, flogs)

35. Juliet _____ very much about sick people. (cares, care)

36. Each time he _____ on a bicycle, either of two things happens. (ride, rides)

37. The _____ ears are bleeding. (dog's, dogs)

38. _____ automated teller machine card is missing. (Bursar's, Bursar)

39. I saw _____ crew in the market. (Moses', Moses)

40. You need some form of relaxation after each _____work. (days', day's)

Tabulation of Scores

Research Question 2 Part: 1 On inflection

GWIS Primary 1 Pupils' Scores

58	62	74	60	68	64	70	64	60	62
70	68	68	70	76	72	76	70	76	70
58	70	70	68	58	76	72	74	64	76
70	68	74	64	76	74	76	70	76	64
58	64	68	70	62	70	60	76	64	68

Class mark	58	60	62	64	68	70	72	74	76
Frequency	4	3	3	7	7	11	2	4	9
Total	232	180	186	448	476	770	144	296	684

Mean score=3416/50 = 68.32

Primary 2 Pupils' Scores

64	74	76	76	70	76	68	66	62	68
74	76	70	62	76	60	72	70	74	74
72	72	76	76	64	76	76	76	76	72
76	62	74	66	76	68	66	74	72	74
64	76	76	76	74	62	74	62	68	76

Class mark	60	62	64	66	68	70	72	74	76
Frequency	1	5	3	3	4	3	5	9	17
Total	60	310	192	198	272	210	360	666	1296

Mean score= 3664/50 = 73.28

Primary 3 Pupils' Scores

60	62	68	60	66	62	68	60	76	70
70	78	76	76	68	60	76	62	62	60
62	66	60	68	76	66	68	66	70	74
70	70	78	66	62	70	60	70	60	74
62	60	62	70	60	68	62	74	70	66

Class mark	60	62	66	68	70	72	74	76	78
Frequency	1	2	2	3	5	2	8	12	15
Total	60	124	132	204	350	144	592	912	1170

Mean score=3688/50 = 73.76

Primary 4 Pupils' Scores

78	72	78	64	64	76	70	74	80	76
68	64	68	72	78	64	64	68	70	70
70	66	74	64	74	68	80	72	66	74
68	64	66	80	64	66	72	66	82	68
78	72	70	66	78	70	74	76	64	66

Class mark	64	66	68	70	72	74	76	78	80	82
Frequency	5	3	6	6	5	5	3	5	7	4
Total	320	462	408	420	360	370	228	390	560	328

Mean score=3824/50 = 76.92

Primary 5 Pupils' Scores

70	72	84	76	86	86	72	78	72	78
78	84	76	78	70	70	78	76	86	76
76	70	78	70	86	82	72	84	70	70
84	78	78	82	72	86	80	78	78	78
72	72	70	76	72	76	70	72	76	86

Class Mark	70	72	76	78	80	82	84	86
Frequency	4	5	8	11	1	2	8	11
Total	280	360	608	836	80	164	672	946

Mean score=3946/50 = 78.92

Primary 6 Pupils' Scores

92	86	84	82	94	84	92	94	92	94
84	82	82	92	82	90	88	84	86	88
92	94	86	94	84	92	82	90	94	90
94	90	84	90	86	94	90	86	90	94
90	86	94	84	88	90	94	92	88	86

Class Mark	82	84	86	88	90	92	94
Frequency	5	7	7	4	9	7	11
Total	410	588	602	352	810	644	1034

Mean score=4440/50 = 88.8

Uhuobo Community Central School Primary 1 Pupils' Scores

38	28	42	26	34	26	24	42	34	24
28	34	26	26	36	38	26	26	24	24
36	28	36	36	40	28	34	26	26	24
28	36	26	28	26	26	24	24	44	24
40	38	26	34	24	42	26	34	24	34

Class Mark	24	26	28	34	36	38	40	42	44
Frequency	10	13	6	7	5	3	2	3	1
Total	240	338	168	238	180	114	80	126	44

Mean score=1528/50 = 30.56

Primary 2 Pupils' Scores

38	30	28	26	36	28	38	28	34	44
30	28	26	42	30	32	30	34	26	28
28	32	36	28	34	26	36	26	36	34
30	26	26	30	32	30	44	26	28	30
36	28	40	28	38	32	28	30	34	26

Class Mark	26	28	30	32	34	36	38	40	42	44
Frequency	9	11	9	4	5	5	3	1	1	2
Total	234	308	270	128	170	180	114	40	42	88

Mean score=1574/50 = 31.48

Primary 3 Pupils' Scores

32	38	34	38	48	38	34	36	34	46
50	50	40	50	40	32	48	46	42	40
38	36	38	36	36	46	36	34	48	48
50	46	32	42	46	36	42	32	46	48
34	46	36	34	38	34	36	48	40	34

Class Mark	32	34	36	38	40	42	46	48	50
Frequency	4	8	8	6	5	3	6	6	4
Total	128	272	288	228	200	126	276	288	200

Mean score=2006/ 50 = 40.12

Primary 4 Pupils' Scores

50	52	40	42	50	48	52	50	40	52
34	38	34	52	34	38	34	46	34	38
42	44	52	42	38	52	40	34	38	50
40	38	40	34	46	34	34	38	52	40
50	42	46	50	50	46	48	48	34	50

Class Mark	34	38	40	42	44	46	48	50	52
Frequency	10	7	6	4	1	4	2	9	7
Total	340	266	240	168	44	184	96	450	364

Mean score=2152/ 50 = 43.04

Primary 5 Pupils' Scores

50	40	44	40	52	46	44	42	46	46
44	48	40	40	42	40	48	42	40	42
40	40	42	46	48	44	40	56	44	44
40	40	40	40	40	40	42	40	42	42
48	44	52	44	44	54	46	44	46	48

Class mark	40	42	44	46	48	50	52	54	56
Frequency	16	8	10	6	5	1	2	1	1
Total	640	336	440	276	240	50	104	54	56

Mean score=2196/50 = 43.92l

Primary 6 Pupils' Scores

42	42	46	40	44	42	44	42	48	40
56	56	56	50	48	40	54	40	52	44
40	52	42	46	42	54	46	44	50	54
56	56	52	48	56	46	40	54	40	52
46	46	40	44	40	44	42	48	42	44

Class mark	40	42	44	46	48	50	52	54	56
Frequency	9	8	7	6	4	2	4	4	6
Total	360	336	308	276	192	100	208	216	336

Mean score=2332/50 = 46. 64

Part Two

Change the words in the brackets to the right forms so that they may suitably fill the gaps. Here is an example for you:

I do not like my friendship with her. (friend)

1. These recreational facilities are for your _____. (enjoy)-enjoyment
2. I like the blanket because it gives _____. (warm)- warmth
3. The weather is _____. (sun)- sunny
4. He was flogged for his _____ .(fail)- failure
5. My friend, Uzo is not _____ .(rely)- reliable
6. I learnt of your _____ to sing. (refuse)- refusal
7. The pupils are quite _____ .(identity)- identical
8. My phone has no _____. (sign)- signal
9. She is in good _____. (heal)- health
10. He is much loves for his _____ .(obey) -obedience
11. We all agreed to take the _____. (decide)- decision
12. I do not have to give any _____ .(explain)- explanation
13. Get ready for _____. (revise)- revision
14. We need some more _____. (attach)- attachment
15. Who are the _____ .(benefit)- beneficiaries
16. He did not show her any _____. (appreciate)- appreciation
17. I have heard about the _____ .(recover)- recovery
18. We listened to the _____. (comment)- commentary
19. He has no _____ .(object)- objection
20. The governor issued a command on _____. (tax)- taxation

Change the words in brackets to the correct part of speech in order that they may

suitably fill the gaps in the sentences. Here is an example for you: To stop breathing means to _____ .(death)- die

21. To notice or become aware of something means to _____. (perception)-perceive
22. To come together as a group means to _____. (assembly)- assemble
23. To give a test in order to see how much pupils or students know about a subject means to_____ .(examination)- examine
24. To watch or check something over a period of time in order to see how it develops means _____ .(supervision)- supervise
25. To say a poem piece of literature or any other thing that has been learned to an audience means to _____. (recitation)- recite
26. To give a piece of advice, especially by an elder person or expert means to _____ .(counselor)- counsel
27. To make somebody feel sad because something that he hopes for or expects to happen does not happen or is not as good as he hoped means to _____. (disappointment)- disappoint
28. Two things that look alike are said to be _____. (similarity) – similar
29. To deal with something that is painful or unpleasant without complaining means to _____ .(endurance)- endure
30. To always tell the truth means to be _____. (honesty)- honest
31. To examine and form an opinion of someone means to _____. (appraisal)- appraise
32. To tell or show somebody how to get somewhere to go means to _____._ (direction)- direct
33. To make someone feel admiration for you means to _____. (impression)- impress

34. To change something slightly in order to make it work means to _____. (adjustment)- adjust
35. To cause to become greater in size, number or become important means to _____. (expansion)- expand
36. To eat or drink something means to _____ .(consumption)- consume
37. To allow someone do something or allow something to happen means to _____. .(permission)- permit
38. To make sure that somebody or something is not harmed means to _____. (protection)- protect
39. To take air into your lungs as you breathe means to _____.(inhalation)- inhale
40. To say that somebody has done something wrong or is guilty of something means to _____.(accusation)- accuse

Tabulation of Scores

GWIS Primary 1 Pupils' Scores

52	46	52	54	46	52	54	50	46	46
58	54	52	56	54	46	56	58	56	54
50	50	46	50	52	46	50	54	50	56
54	52	46	52	58	46	52	50	50	54
56	46	52	54	56	46	54	54	56	58

class mark	46	50	52	54	56	58
Freq	11	8	9	11	7	4
Total	506	400	468	594	392	232

Mean score=2592/50= 51.84

Primary 2 Pupils' Scores

58	54	50	48	60	46	56	60	56
50	50	48	54	46	52	60	52	46
48	50	54	62	52	58	54	54	62
48	50	50	58	54	52	52	46	46
54	60	50	46	56	46	54	60	54

class mark	46	48	50	52	54	56	58	60	62
Freq	8	4	7	7	9	4	4	5	2
Total	368	192	350	364	486	224	232	300	124

Mean score=2640/50= 52.8

Primary 3 Pupils' Scores

62	66	56	60	64	58	62	52	58	52
56	58	66	64	50	64	64	64	56	66
66	64	62	58	66	56	58	64	66	64
64	66	64	66	64	66	52	64	58	60
58	50	66	60	56	62	64	56	52	66

class mark	50	52	56	58	60	62	64	66
freq	2	4	6	7	3	4	13	11
Total	100	208	336	406	180	248	704	660

Mean score=2842/50=56.84

Primary 4 Pupils' Scores

52	60	58	52	58	46	56	50	60	52
60	46	62	60	60	60	56	62	46	56
56	62	56	48	58	46	62	52	62	60
62	52	60	60	56	62	56	58	60	46
50	60	62	58	50	58	52	56	56	62

class mark	46	48	50	52	56	58	60	62
freq	5	1	3	6	9	6	11	9
Total	230	48	150	313	504	348	660	558

Mean score=2920/50 = 58.4

Primary 5 Pupils' Scores

60	66	52	66	58	64	56	64	58	64
64	66	64	56	66	60	66	62	64	56
48	66	58	66	50	66	64	66	66	66
64	64	66	60	66	66	66	52	64	64
58	66	52	48	64	56	54	64	58	66

Class mark	48	50	52	54	56	58	60	62	64	66
Frequency	2	1	3	1	4	5	3	1	13	17
Total	96	50	156	54	224	290	180	62	832	11222

Mean score=3066/50=61.32

Primary 6 Pupils' Scores

80	72	82	76	78	70	78	78	70	74
66	80	72	80	82	82	82	82	80	82
82	78	82	66	72	80	68	78	82	80
78	82	78	82	82	82	82	82	80	70
72	66	80	78	70	80	76	78	70	82

class mark	66	68	70	72	74	76	78	80	82
freq	3	1	5	4	1	2	9	9	16
Total	198	68	350	288	74	152	702	720	1312

Mean score=3864/50=77.28

Part Three

Split the following words into their constituent morphemes and indicate whether new forms or lexemes were created where applicable. Here is an example for you:

Congratulations – congratulate – ion –s

Words	constituent morphemes	lexeme or form
1. Digestion	digest + ion	new lexeme
2. Materialize	material + ize	“
3. Behaviour	behav + iour	“
4. Involvement	involve + ment	“
5. Mildest	mild + est	new form
6. Package	pack + age	new lexeme
7. Assessment	assess + ment	“
8. Player	play + er	“
9. Knew	know + past tense	new form
10. Singing	sing + ing	“
11. Manager	manag + er	new lexeme
12. Robots	robot + s	new form
13. Slimmest	slim + est	“
14. Brewery	brew + ery	new lexeme
15. Reduction	reduct + tion	“
16. Lived	liv + ed	new form
17. Promotions	promot + ion + s	new lexeme
18. Worrying	worry + ing	new form
19. Goes	go + es	“
20. Disturbance	disturb + ance	new lexeme

21. Woke	wake + past tense	new form
22. Greater	great + er	“
23. Bicycles	bicycle + s	“
24. Members	member + s	“
25. Creditor	credit + or	new form
26. Dancing	danc + ing	new form
27. Revision	revis + ion	new lexeme
28. Planets	planet + s	new form
29. Advancement	advance + ment	new lexeme
30. Seizure	seiz + ure	“
31. Grouping	group + ing	new form
32. Monkey’s	monkey +’s	“
33. Thinks	think + s	“
34. Weeding	weed + ing	“
35. Fusion	fus + ion	new lexeme
36. Bulb’s	bulb +’s	new form
37. Masters	master + s	“
38. Production	produc + t + ion	new lexeme
39. Withdrawal	withdraw + al	“
40. Learning	learn + ing	new form

Tabulation of Scores

Research question 2 Part 3 On segmentation

Primary 1 Pupils' Scores

26	28	27	29	29	26	26	26	27	28
31	30	29	32	33	32	28	31	30	26
29	32	26	32	27	26	30	29	32	30
28	28	31	28	30	30	28	31	28	27
26	27	29	26	26	28	29	26	30	33

Class mark	26	27	28	29	30	31	32	33
Frequency	11	5	9	7	7	4	5	2
Total	286	135	252	203	210	124	160	66

Mean score=1436/50 = 28.72

Primary 2 Pupils' Scores

26	29	32	31	26	33	29	26	30	32
35	32	28	33	35	28	34	34	35	28
30	34	31	34	30	35	35	33	31	31
35	33	26	32	34	31	33	35	34	33
28	31	29	31	29	26	32	28	29	26

Class mark	26	28	29	30	31	32	33	34	35
Frequency	6	5	5	3	7	5	6	6	7
Total	156	140	145	90	217	160	198	204	245

Mean score=1555/50 = 31.1

Primary 3 Pupils' Scores

29	31	31	29	31	35	31	38	35	36
38	36	38	38	32	29	38	29	37	38
31	32	29	32	36	37	32	37	36	38
37	35	37	38	29	32	37	32	29	38
35	29	32	31	35	31	29	31	38	35

Class mark	29	31	32	35	36	37	38
Frequency	9	8	7	6	4	6	10
Total	261	248	224	210	144	222	380

Mean score=1689/50 = 33.78

Primary 4 Pupils' Scores

30	38	42	30	32	40	38	36	41	35
38	42	40	36	42	42	41	30	41	41
42	42	35	42	35	34	41	41	35	38
36	42	36	38	30	42	36	41	41	30
42	30	42	32	42	36	32	35	40	36

Class mark	30	32	34	35	36	38	40	41	42
Frequency	6	3	1	5	7	5	3	8	12
Total	180	96	34	1	175	252	190	120	504

Mean score=1879/50 = 37.38

Primary 5 Pupils' Scores

33	37	34	41	38	36	45	36	481	33
41	44	45	38	40	45	33	38	45	44
44	34	38	45	36	44	37	44	34	34
40	45	41	45	45	41	44	40	44	41
34	37	36	33	44	36	38	34	33	36

Class mark	33	34	36	37	38	40	41	44	45
Frequency	5	6	6	3	5	3	6	8	8
Total	165	204	216	111	190	120	246	352	360

Mean score =1964/50 = 39.28

Primary 6 Pupils' Scores

39	48	40	54	581	39	38	44	46	48
54	54	54	37	46	54	48	51	54	37
46	51	46	48	43	51	46	54	48	46
51	48	51	46	54	48	54	46	54	44
37	39	38	48	39	40	38	51	46	38

Class mark	37	38	39	40	43	44	46	48	51	54
Frequency	3	4	4	2	1	2	9	8	7	10
Total	111	152	156	80	43	88	414	384	357	540

Mean score=2325 / 50 = 46.5

Uhuobo Community Central School, Okija Primary 1 Pupils' Scores

11	15	12	11	12	11	11	11	11	11
21	13	20	15	14	17	13	15	17	13
11	15	11	14	11	12	12	14	12	18
14	13	20	12	20	15	11	11	13	17
12	11	12	11	12	11	13	17	11	11

Class mark	11	12	13	14	15	17	18	20	21
Frequency	17	9	6	4	5	4	1	3	1
Total	187	108	78	56	75	68	18	60	21

Mean score=671/50 = 13.42

Primary 2 Pupils' Scores

14	21	20	13	12	20	19	20	21	22
12	13	14	12	16	12	13	12	12	16
19	12	12	19	13	19	21	13	13	20
13	13	13	21	14	12	12	16	2013	
14	20	20	14	20	15	20	22	12	21

Class mark	12	13	14	15	16	19	20	21	22
Frequency	11	10	5	1	3	4	9	5	2
Total	132	130	70	15	48	76	180	105	44

Mean score=800/50 =16

Primary 3 Pupils' Scores

15	19	16	20	15	22	15	18	19	18
20	24	15	17	18	19	20	16	15	20
17	22	19	16	19	16	22	19	20	16
22	20	24	22	18	20	17	19	19	19
15	16	19	15	24	15	19	15	16	18

Class mark	15	16	17	18	19	20	22	24
Frequency	9	7	3	5	11	7	5	3
Total	135	112	51	90	209	140	110	72

Mean score= 919/50 = 18.38

Primary 4 Pupils' Score

23	19	16	17	16	23	19	25	19	19
18	16	23	19	24	17	18	17	23	16
19	23	17	18	18	19	23	19	17	23
16	18	19	16	19	18	17	18	18	18
23	19	17	23	25	23	19	23	27	19

Class mark	16	17	18	19	23	24	25	27
Frequency	6	7	9	13	11	1	2	1
Total	96	119	162	247	253	24	50	27

Mean score=978/50 =19.56

Primary 5 Pupils' Scores

19	19	17	27	28	19	22	28	19	24
27	22	24	22	21	22	17	18	28	28
22	27	19	24	24	24	24	24	22	21
24	21	28	28	16	22	21	28	24	17
18	24	27	18	27	19	21	22	21	28

Class mark	16	17	18	19	21	22	24	27	28
Frequency	1	3	3	6	6	8	10	5	8
Total	16	51	54	114	126	176	240	135	224

Mean score=1136/50 = 22.72

Primary 6 Pupils' Scores

28	25	27	21	21	31	27	24	22	25
22	19	22	24	28	22	31	22	19	21
19	21	28	22	27	25	21	25	21	19
21	22	21	31	22	21	22	19	19	21
25	28	25	31	27	31	24	21	31	25

Class mark	19	21	22	24	25	27	28	31
Frequency	6	11	9	3	7	4	4	6
Total	114	231	198	72	175	108	112	186

Mean score=1196/50 = 23.92

Part 4

State how many morphemes there are in each of the following words and indicate whether each of the word endings is a morpheme or an integral part of the spelling of the word. Here is an example:

Saviour 2 morphemes morpheme

Words	No. of morphemes	relationship
1. Dancer	2	morpheme
2. Singer	3	morpheme
3. Speaker	2	morpheme
4. Revolving	2	morpheme
5. Drawer	1	no
6. Hammers	2	morpheme
7. Filled	2	“
8. Weeding	2	“
9. Fiction	1	no
10. Hawker	2	morpheme
11. Ranger	1	no
12. Broker	1	no
13. Defender’s	3	morpheme
14. Reads	2	morpheme
15. Danger	1	no
16. Reception	2	morpheme
17. Scorer	2	“
18. Weaker	2	“
19. Winter	1	no

20. Believes	2	morpheme
21. Weather	1	no
22. Fidelity	1	no
23. Steamer	2	morpheme
24. Manager	2	“
25. Auction	1	“
26. Filter	1	“
27. Wrestling	2	morpheme
28. Goes	2	morpheme
29. Checked	2	“
30. Action	2	“
31. Jumping	2	“
32. Restrictions	3	”
33. Stronger	2	“
34. Slimmest	2	“
35. Lowest	2	“
36. Bought	2	“
37. Dreams	2	”
38. Stole	2	“
39. Royalty	2	“
40. weaken	2	“

Tabulation of Scores

Research Question2 Part 4 On word families

GWIS Primary 1 Pupils' Scores

32	36	34	32	34	38	34	32	34	34
38	38	38	38	32	40	46	48	42	32
34	32	40	36	36	34	32	42	34	38
32	48	32	40	38	40	34	34	38	40
36	36	42	34	34	34	32	38	32	32

class mark	32	34	36	38	40	42	46	48
frequency	12	12	6	9	5	3	1	2
Total	384	408	216	342	200	86	46	96

Mean score=1778/50 = 35.56

Primary 2 Pupils' Scores

36	32	36	50	34	32	34	38	34	46
30	46	46	36	50	50	50	46	50	44
46	36	32	46	40	30	34	36	46	36
50	46	50	50	46	36	46	34	38	34
32	32	36	34	32	50	32	40	34	46

class mark	30	32	34	36	38	40	44	46	50
frequency	2	7	8	8	2	2	1	11	9
Total	60	224	272	288	76	80	44	506	450

Mean score=2000/50 = 40

Primary 3 Pupils' Scores

38	50	44	46	42	50	48	44	44	48
38	46	40	54	50	50	40	54	50	46
46	50	50	44	46	48	54	54	46	54
44	40	38	50	50	40	46	48	48	48
50	50	46	46	40	54	48	44	44	46

class mark	38	40	42	44	46	48	50	54
frequency	3	5	1	7	10	7	11	6
Total	114	200	42	308	460	336	550	324

Mean score=2334/50= 46.6

Primary 4 Pupils' Scores

64	62	58	66	62	62	68	68	64	62
58	66	62	50	66	54	58	54	56	64
68	50	64	56	64	58	66	64	62	64
64	62	68	66	52	64	64	62	64	58
58	66	56	62	66	54	62	58	56	68

class mark	50	52	54	56	58	62	64	66	68
Frequency	2	1	3	4	7	10	11	7	5
Total	100	52	162	224	406	620	704	462	340

Mean score=3070/50 = 61.4

Primary 5 Pupils' Scores

64	70	66	76	74	66	74	66	68	68
66	74	64	64	66	64	76	72	66	76
76	72	74	68	74	74	68	70	64	72
76	76	70	70	68	76	64	68	70	66
74	66	70	66	64	68	66	66	68	64

class mark	64	66	68	70	72	74	76
frequency	8	11	8	6	3	7	7
Total	512	726	544	420	216	518	456

Mean score=3392/50 = 67.84

Primary 6 Pupils' Scores

72	74	78	74	76	80	76	78	74	72
76	76	76	80	74	82	74	72	80	80
78	72	76	78	76	78	72	80	74	76
76	78	72	82	76	76	80	76	72	84
74	76	74	78	72	74	78	74	78	74

class mark	72	74	76	78	80	82	84
frequency	8	11	14	8	6	2	1
Total	576	814	1064	624	480	164	84

Mean score=3746/50 = 74.92

Uhuobo Community Primary1 Pupils' Scores

18	18	18	26	20	28	18	22	18	26
20	22	24	20	28	18	24	18	20	22
28	20	20	22	22	18	18	20	22	18
26	18	22	28	18	24	22	26	26	20
24	24	20	18	24	20	20	22	18	20

class mark	18	20	22	24	26	28
frequency	14	12	9	6	4	5
Total	252	240	198	144	104	140

Mean score=1078/50 = 21.56

Primary 2Pupils' Scores

18	20	20	28	20	28	18	20	20	26
28	26	18	22	28	18	20	28	24	18
22	18	22	26	22	22	24	24	22	28
26	26	24	18	24	20	26	22	18	20
20	22	24	20	20	26	22	18	26	24

class mark	18	20	22	24	26	28
frequency	9	11	9	7	8	6
Total	162	220	198	168	208	168

Mean score=1124/50 = 22.48

Primary 3 Pupils' Scores

36	36	24	32	26	32	34	30	26	34
24	24	26	30	30	30	34	34	24	26
36	36	36	24	34	26	26	32	30	32
30	26	30	32	32	24	32	30	32	30
36	24	26	26	26	34	30	24	26	24

class mark	24	26	30	32	34	36
frequency	9	11	10	8	6	6
Total	216	286	300	256	204	216

Mean score=1478/ 50 = 29.56

Primary 4 Pupils' Scores

28	32	36	30	32	40	46	30	34	46
40	36	40	36	36	46	28	36	32	36
34	34	42	28	42	42	32	34	36	40
40	34	42	34	34	36	36	40	40	34
36	32	36	42	30	34	32	30	46	32

Class mark	28	30	32	34	36	40	42	46
Frequency	3	4	7	9	11	7	5	4
Total	84	120	224	306	396	280	210	184

Mean score=1804/50 = 36.08

Primary 5 Pupils' Scores

38	36	32	48	38	40	32	50	38	50
38	44	44	50	48	38	44	38	50	38
50	38	50	48	36	50	38	36	50	36
36	44	38	38	38	32	40	48	48	50
44	30	50	40	32	50	34	40	38	38

Class mark	30	32	34	36	38	40	44	48	50
Frequency	1	4	5	14	4	5	5	11	11
Total	30	128	34	180	532	80	220	240	550

Mean score=1994/50 - 39.88

Primary 6 Pupils' Scores

42	50	40	40	42	36	50	40	34	30
38	40	54	38	46	38	46	38	54	46
38	50	50	38	54	52	40	42	38	50
40	46	42	40	36	42	50	46	40	54
50	52	46	52	50	38	50	46	36	40

Class mark	30	34	36	38	40	42	46	50	52	54
Frequency	1	1	3	8	9	5	7	9	3	4
Total	30	34	108	304	360	210	322	450	156	216

Mean score=2184/50 = 43.68

Part Five

Give the part of speech of the following words as well as provide their base forms. Here is an example. Healthy – adjective – health

Words	part of speech	base
1. Growth	noun	grow
2. Management	noun	manager
3. Expiration	noun	expire
4. Regularize	verb	regular
5. Ownership	noun	own
6. Acidify	verb	acid
7. Glorify	verb	glory
8. Preacher	noun	preach
9. Remember	verb	remember
10. Strengthen	verb	strength
11. Atonement	noun	atone
12. Organization	noun	organize
13. Vaccination	noun	vaccine
14. Adoration	noun	adore
15. Playful	adjective	play
16. Prayer	noun	pray
17. Reception	noun	receive
18. Guardian	noun	guard
19. Informant	noun	inform
20. Honesty	noun	honest
21. Execution	noun	execute

22. Planetary	adjective	planet
23. Crucial	adjective	crux
24. Customize	verb	custom
25. Repentant	adjective	repent
26. Sandy	adjective	sand
27. Unity	noun	unite
28. Socially	adverb	social
29. Feverish	adjective	fever
30. Labourer	noun	labour
31. Distinction	noun	distinct
32. Quantify	verb	quantity
33. Generalize	verb	general
34. Valuable	adjective	value
35. Inspiration	noun	inspire
36. Investors	noun	invest
37. Competition	noun	compete
38. Moderator	noun	moderate
39. Aspirant	noun	aspire
40. Removal	noun	remove

Research Question 2 Part 5: On part of speech

GWIS Primary 1 Pupils' Scores

32	34	36	34	40	36	44	32	46	32
34	36	40	32	36	32	34	44	32	34
32	32	34	36	32	36	32	36	34	32
36	34	36	40	34	34	42	34	32	40
32	36	32	40	32	40	36	32	40	40

class mark	32	34	36	40	42	44	46
frequency	16	11	11	8	1	2	1
Total	512	374	394	320	42	88	46

Mean score=1778/50 =35.56

Primary 2 Pupils' Scores

32	36	38	36	36	34	36	36	46	36
38	32	36	32	38	38	32	42	32	32
36	34	42	38	34	36	46	38	40	46
38	40	38	36	36	32	38	32	34	46
34	38	34	34	32	42	36	44	36	36

Class mark	32	34	36	38	40	42	44	46
frequency		7	14	10	2	3	1	4
Total	288	238	504	380	80	126	44	184

Mean score=1844/50 =36.88

Primary 3 Pupils' Scores

36	40	46	48	38	48	42	46	38	46
40	36	40	38	46	38	48	36	46	42
40	42	48	42	40	36	40	38	40	38
36	38	48	36	40	46	46	48	42	42
46	48	40	40	38	40	38	42	36	46

Class mark	36	38	40	42	46	48
Frequency	7	9	11	7	9	7
Total	252	342	440	294	414	336

Mean score=2078/50 = 41.56

Primary 4 Pupils' Scores

48	38	48	42	46	52	52	50	48	44
52	52	46	50	52	44	48	48	50	50
48	40	52	50	50	52	50	46	46	48
52	48	40	52	52	46	52	42	42	50
40	48	50	46	52	48	46	44	48	42

class mark	38	40	42	44	46	48	50	52
frequency	1	3	4	3	7	11	9	12
Total	38	120	168	132	322	528	450	624

Mean score=2382/50 = 47.64

Primary 5 Pupils' Scores

42	54	44	60	54	52	46	56	48	46
44	52	60	48	46	56	42	56	56	56
52	56	42	60	54	42	56	46	52	54
60	52	56	52	60	52	54	44	54	54
54	44	54	46	42	50	48	56	46	46

class mark	42	44	46	48	50	52	54	56	60
Frequency	5	4	7	3	1	7	9	9	5
Total	210	176	322	144	50	364	486	504	300

Mean score=2556/50=51.12

Primary 6 Pupils' Scores

56	60	64	52	56	60	52	56	60	54
60	46	50	66	64	64	66	64	52	56
64	64	60	66	60	50	56	52	60	60
48	56	52	56	66	54	64	64	64	54
64	66	60	50	56	60	52	64	54	66

class mark	46	48	50	52	54	56	60	64	66
Frequency	1	1	3	6	4	8	9	11	7
Total	46	48	150	312	216	448	540	704	462

Mean score=2926/50= 58.52

Uhuobo Community Central School Primary 1 Pupils' Scores

22	22	26	28	32	22	22	28	24	22
24	24	22	30	22	24	28	22	22	26
22	24	28	26	28	26	22	26	26	24
24	24	28	32	24	26	24	28	24	24
24	22	22	22	22	22	26	22	22	22

class mark	22	24	26	28	30	32
frequency	19	13	8	7	1	2
Total	418	312	208	196	30	64

Mean score=1228/50 = 24.56

Primary 2 Pupils' Scores

22	30	28	28	34	26	30	28	24	28
20	24	34	26	28	22	32	22	34	26
34	30	26	34	34	30	34	26	28	24
28	28	22	30	24	32	28	34	34	34
26	24	30	28	30	26	30	28	24	28

class mark	20	22	24	26	28	30	32	34
frequency	1	4	6	7	12	8	2	10
Total	20	88	144	182	336	240	64	340

Mean score=1414/50= 28.28

Primary 3 Pupils' Scores

22	34	32	26	36	30	36	32	36	34
36	26	36	26	28	24	26	24	26	24
22	34	24	28	34	28	36	28	28	28
32	30	36	30	26	36	30	36	24	30
26	32	28	24	34	28	26	24	32	26

class mark	22	24	26	28	30	32	34	36
Frequency	2	7	9	8	5	5	5	9
Total	44	168	234	224	150	160	170	324

Mean score=1518/50 = 30.36

Primary 4 Pupils' Scores

26	28	34	34	36	32	36	26	40	32
32	32	30	26	34	34	26	38	30	26
30	26	32	34	28	30	28	28	34	40
28	30	28	26	32	36	36	36	38	30
32	28	26	32	30	26	32	28	26	34

Class mark	26	28	30	32	34	36	38	40
frequency	10	8	7	9	7	5	2	2
Total	260	224	210	288	238	180	76	80

Mean score=1556/50 =31.12

Primary 5 Pupils' Scores

26	30	40	30	40	34	32	38	40	38
40	32	28	40	28	26	28	28	34	30
28	28	34	34	34	40	36	30	30	32
32	30	30	28	30	36	30	30	30	32
28	26	34	26	28	34	28	28	32	30

class mark	26	28	30	32	34	36	38	40
frequency	4	11	10	6	9	1	3	6
Total	104	308	300	192	306	36	114	240

Mean score=1600/50 = 32

Primary 6 Pupils' Scores

28	44	40	34	44	38	44	36	40	30
44	34	44	30	34	44	34	44	44	36
30	28	38	42	44	28	38	28	36	38
40	30	42	38	42	42	30	38	30	44
34	40	28	34	34	38	36	30	36	40

class mark	28	30	34	36	38	40	42	44
frequency	5	7	7	5	7	5	4	10
Total	140	210	238	180	266	200	168	440

Mean score1758/50 = 35.16

Research Question 3 Immaculata JS3 Students' Scores

82	84	74	80	84	72	76	84	70	80
84	86	82	86	86	82	82	82	86	82
70	76	86	70	82	80	70	86	80	82
86	82	86	84	86	84	86	86	84	86
82	72	84	82	76	74	84	78	82	70

Class mark	70	72	74	76	78	80	82	84	86
Frequency	5	2	2	3	1	4	10	10	13
Total	350	144	148	228	78	320	820	840	1118

Mean score=4046/50 = 80.92

SS3 Students' Scores

86	78	90	84	94	88	78	88	86	82
92	88	92	94	82	92	90	94	94	92
76	94	88	86	92	80	84	86	88	90
92	90	94	92	94	90	92	92	92	93
84	88	82	90	78	86	84	82	90	86

class mark	76	78	80	82	84	86	88	90	92	94
Freq	1	3	1	4	3	6	6	7	10	9
Total	76	234	80	328	252	516	528	630	920	846

4410/50= 88.2

Seat of Wisdom Secondary School

JS3 Students' Scores

42	46	44	44	42	46	42	52	44	56
56	60	58	60	42	54	52	46	42	58
60	42	46	58	46	44	48	44	54	46
52	60	56	42	44	58	40	42	56	58
44	44	42	46	56	42	44	56	58	44

class mark	42	44	46	48	52	54	56	58	60
Freq	10	10	8	1	3	2	6	6	4
Total	420	440	368	48	156	108	336	348	240

JS 3 and SS3 Mean score=2464/50= 49.28

SS3 Students' Scores

68	60	66	64	66	58	66	62	68	60
54	58	52	56	54	56	56	68	54	52
62	66	68	54	62	66	68	52	66	56
58	56	56	58	56	54	60	62	54	54
66	58	62	66	68	64	52	60	56	68

class mark	52	54	56	58	60	62	64	66	68
freq	4	7	8	5	3	5	2	9	7
Total	208	378	448	290	180	310	128	594	476

Mean score= 3012/50= 60.24

Ihembosi Community Secondary School

JS3 Students' Scores

54	46	48	50	42	46	54	48	44	58
42	44	44	44	42	42	46	44	56	46
44	48	42	48	54	50	44	42	42	50
44	42	46	42	44	44	42	46	48	48
48	52	42	54	46	58	42	42	50	44

class mark	42	44	46	48	50	52	54	56	58	
freq	13	11	7	7	4	1	4	1	2	
Total	546	484	322	336	200	52	216	56	116	

JS3 and SS3 Mean scores=2328/50= 46.56

SS3 Students' Scores

46	54	54	54	48	54	52	56	52	48
58	52	46	58	56	58	62	46	60	54
56	56	56	56	60	50	54	58	54	58
52	54	52	54	46	60	46	62	46	56
60	58	54	48	58	52	56	54	56	52

class mark	46	48	50	52	54	56	58	60	62
Freq	6	3	1	7	11	9	7	4	2
Total	276	144	50	364	594	504	406	240	124

2702/50 = 54.04

Research Question 4

Provide other words that belong to the same family with each of the following: Here is an example:

Prepare – prepared – preparedly – preparatory – preparation

1. Nation – national, nationalism, nationalist, nationalistic, nationality, nationalize, nationally
2. General – generalist, generality, generalization, generalize, generally, generalized
3. Consume – consumer, consuming, consumption, consumable
4. Final – finalist, finalize, finally, finality
5. Nature – natural, naturally, naturalize, naturalization, nationalist, naturalistic, naturalism
6. Generous – generosity, generously
7. Stable – stability, stabilize, stability
8. Material – materialize, materialism, materialist, materialistic
9. Beauty – beautiful, beautify, beautifully
10. Member – membership
11. Social – socialize, socially, socialistic
12. Federal – federalism, federalist, federate, federation
13. Structure – structural, structurally, structuralism
14. Symptom – symptomatic, symptomize
15. Use – usage, useful, useless, usual, usually
16. Hard – hardy, harden, hardener
17. Fruit – fruitful, fruitless, fruitfully, fruition, fruitfulness
18. Redeem – redemption, redeemable, redemptive
19. Produce – product, production, productive, productivity
20. Fame – famous, famed

21. Faith – faithful, faithless, faithfully
22. Generate – generation, generational, generative, generator
23. Compute – computer, computerize, computerization, computational, computation
24. Edit – editor, editorial, editorialize, edition
25. Audit – auditor
26. True – truth, truthful, truthfully, truthfulness
27. Analyze – analysis, analyst, analytic, analytical
28. Rest – restful, restless
29. Deceive – deception, deceptive
30. Fraud – fraudster, fraudulent, fraudulence, fraudulently
31. Crime – criminally, criminologist, criminological, criminal, criminology, criminality, criminalize
32. Receive – reception, receptive, receptionist, receptivity
33. Suggest – suggestion, suggestive
34. Complain – complaint, complainant
35. Terror – terrify, terrorist, terrorize
36. Satisfy – satisfaction, satisfactory
37. Perform – performance, per formative
38. Correct – correction, corrective, correctly
39. Globe – global, globalization
40. Explain – explanation, explanatory, explicate, explicable
41. Argue – argument, argumentative, argumentation
42. Appetite – appetizer,
43. Equal – equally, equalize, equalizer
44. Create – creation, creative, creativity, creationism, creature

45. Accuse – accusation, accusative, accusatory

46. Rob – robber, robbery

47. Cultivate – cultivation, cultivator

48. Disturb – disturbance

49. Eat – eatery, eatable

50. Capital – capitalism, capitalize, capitalist, capitalization

Tabulation of Scores

Research Question 4

GWIS Primary 1 Pupils' Scores

48	50	48	52	62	52	56	48	50	60
56	58	58	48	50	48	48	50	48	60
50	48	50	58	48	54	56	48	60	62
56	56	56	52	56	62	52	60	58	62
50	58	48	48	54	50	50	48	48	48

Class mark	48	50	52	54	56	58	60	62
Frequency	16	9	4	2	7	5	4	3
Total	768	450	208	108	392	290	240	186

Mean score=2642/50 = 52.84

Primary 2 Pupils'Scores

48	60	52	64	52	48	54	52	62	56
60	60	60	50	58	58	50	62	48	52
54	48	60	58	54	52	58	56	56	50
60	60	54	48	60	62	48	52	62	56
52	58	64	60	52	58	62	54	52	48

Class mark	48	50	52	54	56	58	60	62	64	66
Frequency	7	3	9	5	4	6	4	5	2	5
Total	336	150	468	270	224	348	240	310	128	330

Mean score=2804/50 = 56.08

Primary 3 Pupils' Scores

50	52	56	68	64	52	56	58	62	64
66	64	68	52	50	66	54	50	52	54
62	54	62	58	62	58	64	62	68	64
56	68	50	62	54	50	62	62	54	68
52	54	58	52	56	66	56	52	64	54

Class mark	50	52	54	56	58	62	64	66	68
Frequency	5	7	7	5	4	8	6	3	5
Total	250	364	378	280	232	496	384	198	340

Mean score=2922/50 = 58.44

Primary 4 Pupils' Scores

68	68	54	56	68	68	64	54	54	68
56	58	68	68	64	58	52	66	66	58
66	68	64	62	60	68	62	58	64	68
66	54	66	68	56	58	68	66	68	58
56	68	56	52	66	58	56	54	66	64

Class mark	52	54	56	58	60	62	64	66	68
Frequency	2	4	7	7	1	2	5	8	14
Total	104	216	392	406	60	124	320	528	952

Mean score=3102/50= 62.04

Primary 5 Pupils' Scores

70	62	66	58	70	62	70	64	62	56
64	64	58	64	60	68	62	62	56	72
62	58	72	60	56	66	64	56	56	64
62	64	58	58	62	60	56	68	56	56
70	66	60	68	60	70	62	56	62	62

Class mark	56	58	60	62	64	66	68	70	72
Frequency	9	5	5	11	7	3	3	5	2
Total	504	290	300	682	448	198	204	350	144

Mean score=3120/50 = 62.4

Primary 6 Pupils' Scores

74	58	68	64	70	72	68	64	72	68
66	58	66	66	60	64	60	66	66	64
58	68	58	74	68	66	64	72	68	74
64	58	72	58	64	74	66	68	68	60
72	64	58	70	72	64	72	74	62	66

Class mark	58	60	62	64	66	68	70	72	74
Frequency	7	3	1	10	8	7	2	7	5
Total	406	180	62	640	528	476	140	504	390

Mean score=3326/50 = 66.52

Uhuobo Community Central School, Okija Primary 1 Pupils' Scores

28	26	18	24	18	18	22	28	22	26
22	18	22	18	28	26	18	20	18	20
18	18	18	30	18	22	30	26	18	32
18	22	18	22	22	24	20	22	30	20
26	28	24	20	26	20	28	18	20	28

Class mark	18	20	22	24	26	28	30	32
Frequency	15	7	9	3	6	6	3	1
Total	270	140	198	72	156	168	90	32

Mean score=1126/50 = 22.52

Primary 2 Pupils' Scores

22	20	28	20	30	20	28	30	22	26
20	34	20	32	18	26	20	18	34	20
30	22	30	18	20	28	24	20	26	22
20	28	18	22	26	34	20	26	18	18
32	30	24	28	30	22	30	18	32	22

Class mark	18	20	22	24	26	28	30	32	34
Frequency	7	11	7	2	5	5	7	3	3
Total	126	220	154	48	130	140	210	96	102

Mean score=1226/ 50 = 24.52

Primary 3 Pupils' Score

28	36	34	22	22	30	24	22	34	24
22	22	26	32	22	26	22	32	26	22
28	24	24	22	26	24	22	26	22	26
22	26	22	28	24	38	22	24	24	26
34	24	32	24	30	22	32	30	22	24

Class mark	22	24	26	28	30	32	34	36	38
Frequency	16	11	8	3	3	4	3	1	1
Total	352	264	208	84	90	128	102	36	38

Mean score=1302/50 = 26.04

Primary 4 Pupils' Scores

34	20	28	20	20	20	34	32	20	24
26	34	24	40	20	32	20	26	40	30
32	22	32	28	30	24	30	22	24	26
26	28	36	22	22	20	40	24	32	22
36	32	20	32	34	28	26	26	34	26

Class mark	20	22	24	26	28	30	32	34	36	40
Frequency	9	5	5	7	4	3	7	5	2	3
Total	180	110	120	182	112	90	224	170	72	120

Mean score=1380/50 = 27.6

Primary 5 Pupils' Scores

38	24	36	30	40	40	38	32	26	40
24	34	30	36	22	36	28	24	26	36
30	22	38	22	38	22	36	40	38	36
22	24	22	40	22	40	22	22	26	26
38	34	36	24	28	34	38	26	36	38

Class mark	22	24	26	28	30	32	34	36	38	40
Frequency	9	5	5	2	3	1	3	8	8	6
Total	198	120	130	56	90	32	102	288	304	204

Mean score=1560/50 = 31.2

Primary 6 Pupils' Scores

40	38	32	38	32	40	32	40	38	42
38	26	40	36	40	26	36	38	42	26
28	38	32	32	36	38	42	34	26	36
26	28	36	40	28	36	38	26	36	36
40	28	38	38	40	30	34	38	42	26

Class mark	26	28	30	32	34	36	38	40	42
Frequency	7	4	1	5	2	7	11	9	4
Total	182	112	30	160	68	252	418	360	168

Mean score=1750/50 = 35

Immaculata Girls' JS3 Students' Scores

72	76	86	76	86	80	86	78	76	82
80	86	80	78	82	84	72	84	88	78
78	82	72	88	86	80	82	88	78	82
82	86	88	80	76	78	76	88	82	76
76	78	82	72	88	84	88	82	78	78

Class mark	72	76	78	80	82	84	86	88
Frequency	4	7	9	5	9	3	6	7
Total	288	532	702	400	738	252	516	616

Mean score=4044/50 = 80.88

SS3 Students' Scores

68	90	92	84	90	84	92	84	90	92
92	78	78	78	92	78	90	78	86	84
78	92	84	92	84	84	88	92	80	80
86	82	86	78	78	92	92	86	92	84
90	82	92	90	92	80	80	90	80	92

Class mark	72	78	80	82	84	86	88	90	92
Frequency	1	3	5	2	8	4	5	7	15
Total	72	234	400	164	672	344	440	630	1380

Mean score=4336/50 = 86.72

Seat of Wisdom Secondary School, Ozubulu

JS3 Students' Scores

52	44	40	52	38	46	48	38	44	54
46	40	38	38	42	38	38	44	40	42
42	38	42	44	54	40	40	40	54	42
38	48	38	40	38	42	50	54	42	44
46	42	52	40	48	44	44	42	44	38

Class mark	38	40	42	44	46	48	50	52	54
Frequency	11	9	9	7	3	3	1	3	4
Total	418	360	378	308	138	144	50	156	216

Mean score=2168/50 = 43.36

JS3 & SS3

SS3 Students' Scores

54	52	46	46	52	50	44	50	46	54
50	48	50	48	44	44	54	44	52	60
52	56	54	50	50	58	44	60	44	50
48	48	48	46	44	44	50	46	46	46
54	52	48	52	54	44	44	52	50	52

Class mark	44	46	48	50	52	54	56	58	60
Frequency	10	7	6	9	8	6	1	1	2
Total	440	322	288	490	416	324	56	58	120

Mean score=2514/50 = 50.28

Ihembosi Community Secondary School

JS 3 Students' Scores

42	32	46	32	42	38	34	40	44	40
34	38	32	48	34	34	50	32	40	34
42	44	44	44	46	34	44	34	42	34
34	32	32	38	38	32	32	44	32	44
46	38	38	46	44	44	40	48	34	40

Class mark	38	42	44	46	48	50	52	54	56
Frequency	5	11	12	7	7	1	2	2	3
Total	190	462	528	322	336	50	104	108	168

Mean score=2268/50 = 45.36

Glossary :

L_1- first language

L_2 –second language

L_2 A - second language acquisition