# SYNTACTIC COMPLEXITY AND SENTENCE DECODING

BY

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SYNTACTIC COMPLEXITY AND SENTENCE DECODING

Joseph Sunday Aliyu

Under the supervision of Professor Dale D. Johnson

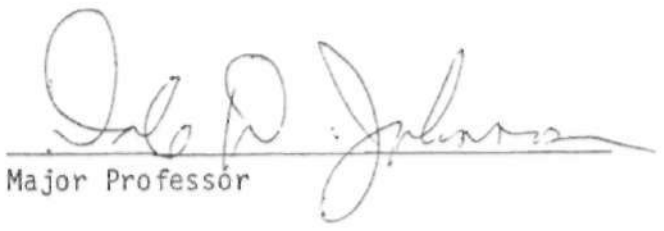
This study investigated how performance with syntactic structures and reading comprehension were positively correlated. The study was designed to determine if duration of exposure to English was significantly correlated with a student's performance with syntactic structures and reading comprehension. The study was also done to examine how urban subjects differed from their rural counterparts in both syntactic structures and reading comprehension.

One-hundred eighty 3rd and 5th year secondary school students from six different locations in Nigeria were randomly selected from the northern part of the country to form the subject pool. These subjects were given one-hour Cambridge School Certificate-type tests on syntactic structures and reading comprehension (see Appendix).

Results revealed varying patterns. In most urban schools performance with syntactic structures and reading comprhension were not positively correlated; but in most rural schools performances with syntactic structures and reading comprehension were positively correlated. In most urban schools duration of exposure to English and good overall language performance were positvely correlated. But such positive correlations were not observed in most rural schools.

Results from the study have therefore indicated that, contrary to normal expectations, there was not necessarily positive correlations

between performances with syntactic structures and reading comprehension among urban secondary school subjects in the ESL situation of Nigeria. The results also showed that years of exposure to English was an advantageous factor to urban secondary school students in Nigeria, but this situation was not applicable to students in most rural secondary schools. The results further revealed that schools could not be described as being exceptionally good or bad on the basis of location per se. This last point was confirmed by the very poor performance by the urban school students in Kano (Nigeria) and the exceptionally good performance of the rural school students in Gindiri (Nigeria).



Major Professor

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# CHAPTER ONE

## STATEMENT OF THE PROBLEM AND RELEVANT LITERATURE

### Introduction

Linguists have for some time been unanimous in stating that grammatical signals are important for the understanding of a sentence. But these same language specialists (Fries, 1963; Rivers, 1968; Schreiber, 1980) have expressed opposing views on what they consider to be the relative contribution of grammatical complexity to reading. While Fodor and Garrett (1967) and Fagan (1971) have contended that grammatical signals could slow down the rate of sentence understanding, Pearson (1974) has argued that grammatical complexity is an aid to comprehension and recall and not an obstacle as some have stated. These opposing views have added to the number of theories of reading proposed by the different specialists. In addition to this, researchers like Fagan and Pearson have tried to show if a good understanding of complex grammatical forms could accelerate an individual's performance in a reading comprehension task. Studies like the above and others came up with conflicting findings. The studies referred to have all used English native speakers and generally elementary school subjects. So far no research is known to have used English as Second Language (or ESL) subjects. The main reason behind this study was to use ESL subjects to establish whether indeed high positive correlations exist between exceptionally good performance in syntactic structures and reading comprehension.

Statement of the Problem

Chomsky (1969) has contended that the meaning of a sentence is very much tied to the syntactic structure. Fries (1940) has similarly observed that "the order of the words as they stand in a sentence has become for modern English an important device to show grammatical or structural relationships." According to these views, good perception of syntactic units and sentence decoding should be positively correlated. For the English as Second Language (or ESL) students like those in Nigeria, the relationship between the major forms of language are still not clearly identified. Reading, structure and lexis are known to be related but the degree to which such a relationship exists has never been defined through research findings. The question to be asked amounts to this: Is there any positive relationship between performances in syntactic structure and reading comprehension in the ESL situation? If there is such a positive correlation, how high is it?

Several descriptive terms are used in ESL circles. It is necessary to specify those referred to in this study. In the ESL situation, as in the Nigerian one, students are usually described as falling into the following general categories which are determined by ranges of scores in any of the official examinations:

| | |
|---|---|
| 80 and above | - exceptional student |
| 60-79 | - very good student |
| 50-59 | - good student |

40-49 - average student

below 40 - weak student

This pattern of description is used by the Cambridge University School Certificate Examination Board, the West African Examination Council, some testing syndicates and T.O.E.F.L. (Testing of English as Foreign Language) based in America. These scores usually represent the overall performance of each candidate in the areas of structure, comprehension, lexis and written composition. In this study whenever a qualitative term regarding performance is used it will have as its frame of reference the guidelines cited above.

One of the goals of the study was to use the findings to assess the most viable of the reading models being advocated by the different theoreticians and identify which of the models is most relevant to the ESL situation in Nigeria. For procedural convenience, three main hypotheses were generated on a priori basis:

Hypothesis 1: There will be a positive correlation between performances in syntactic structures and reading comprehension.

Hypothesis 2: 5th year secondary students will do better than 3rd year secondary students in both syntactic structures and reading comprehension, irrespective of location.

Hypothesis 3: Urban secondary school students will do better than the rural secondary school students in both syntactic structures and reading comprehension.

Scope of the Study

Subjects were tested in 60 items of syntactic structures drawn from four main areas and reading comprehension through two reading passages accompanied with 20 sets of multiple-choice questions. The syntactic structures were drawn from the following areas:

Complex verb form: The complex verb form plays an important role in meaning interpretation and has a high rate of occurrence in speech and text. Example (14) You needn't have gone there as he was not expecting you. Fourteen items represented this syntactic form.

Paraphrase of content through alternations of Noun, Phrase, Verb Phrase, Conditionals and Conjunctions: These syntactic alternations regularly convey meaning in a non-literal sense. They are often used independently or in combination. Example (45) His becoming the supervisor meant discipline at all times. They constituted 12 items in Section A (structure section) of the test.

Use of Pronouns: The pronouns help to show whether testees recognize the link between pronouns and their referents, especially where there are other potential candidates for the antecedent status. Ten items in the structure section were selected to cover this area. Example: (40) The director's wife was seriously ill so we visited her.

Intra-sentence linkers and adverbials: These markers of linkage and adverbials show how syntactic items could be used to modify or change the meanings of statements, questions or observations. Such linkers and adverbials constituted 10 items in the structure test. Example: (32) Although it was windy, neither Moji nor Paul cared much.

Fourteen miscellaneous syntactic structures were included. These covered the areas of Noun Phrase as subject or clausal subject, word order, complementation, prepositions and determiners. These items were intended to help show the subjects' overall sensitivity to syntactic structures. What was expected was that it would be possible with these selections to assess the subjects' recognition and use of specific syntactic items as well as the general control of English.

The reading comprehension tests were selected to examine the subjects' overall performance in absorbing the contents of passages. Two different types of passages were used to examine reading comprehension. One passage was expository and the other was narrative. These passages were selected for two main reasons. The ESL students in Nigeria are usually tested with two types of texts so that each one served approximately one area of interest. One passage may be from the field of science while the other passage may be taken from the arts. A text may be taken from a journal on agriculture while another text may come from a novel or history book. In this study the students selected as subjects were randomly chosen across the major academic disciplines of science and arts. So selecting one type of passage twice might have given undue advantage to some students. The questions that accompany the two passages test four levels of comprehension: literal comprehension, inferential comprehension, use of world knowledge for text interpretation and knowledge of relative words and their referents.

Both the reading comprehension tests and the tests on structures in the study were constructed in line with or taken from a

standardized test - the West African School Certificate (or W.A.S.C.), which has been designed after the Cambridge School Certificate (British) (see Appendix A).

The subjects were drawn from the 5th and 3rd years of selected Nigerian secondary schools. The difference in grades was intended to permit any major contrasts in performance to be revealed more prominently.

Foreign names and technical vocabulary items were altered or modified in the questions on the tests. The names were changed to reduce the level of unfamiliarity of any subjects with the test items. The lexical items were modified to ensure that performance in the proposed tests was not constrained by lexical difficulties. In the following section a look will be taken at some related work done in the area of the study.

Relevant Literature

Syntax and Syntactic Complexity: Since the second half of this century, syntax has received attention from both psychologists and linguists. Studies carried out by these specialists have looked into the major characteristics of syntax and how these in turn influence the dynamics of reading comprehension. What in fact is syntactic information?

One may start by first identifying the two other components of language that generally overlap with syntax. These are phonology and lexis. In every language the phonological system accounts for the total sound units and the sequences of sound combinations possible in that language. The lexis comprises the vocabulary items of the

language as well as their semantic meaning in specific contexts. Syntax can in general terms, be regarded as the means by which words combine into sentences. It is an aspect of language which is often crucial to the interpretation of written or spoken material. In the words of Foss and Hakes (1978):

> When we concentrate upon the order and organization among words we are dealing with the syntactic system. Syntax is an important aspect of language, both because of its role in determining the relationships between sound patterns and meanings and because certain aspects of the creative use of language can best be accounted for in terms of syntax.

Pearson (1978) has similarly stated that "syntactic information refers to the ordering relationships among words in sentences. Even six-year olds possess a great deal of information about how words are ordered within sentences to represent grammatically acceptable statements."

Some of the main suggestions on the syntactic influence on reading have been made by Fodor and Garrett (1967) and Bever (1970). Essentially, these researchers claim that the language users (listeners and readers) "have at their command a set of mental strategies by which they segment sentences into constituents, classify constituents and construct semantic representations for them."

When such language users encounter signals like determiners (or articles), they assume they have the opening word in a new constituent. The language user employs the same mental strategies to organize into appropriate segmentations the other items of the sentence. When the strategies fail to lead to some plausible conclusions the reader or

listener reassigns the available signals into more agreeable segmentations. This means simply that readers or listeners first identify the signals that are present and classify them into their respective groups. This enables them to identify such groups as noun phrases, verb phrases, determiners, prepositional phrases, and sentence forms like questions, inversion and fronting.

When the grammatical signals are correctly identified, they can be used to integrate the different components of the sentence. This identification will ultimately lead to some more or less full perception of the content of the sentence or text. This is so because the first part of the sentence, for example, the noun phrase, may identify a topic or some part of it, while the verb phrase will give an account of some sort in respect of that same noun phrase. The prepositional phrase, if used, may register some qualification about the same topic. This is one way through which comprehension may be arrived at. But it is certainly not the only route to comprehension.

Some linguists have argued that the surface grammatical clues that could be relied on are sometimes absent from certain sentences. Others like Chomsky (1965) and Slobin (1972) have contended that some surface features are not informative enough and so readers or listeners have to go beyond such surface signals to establish the nature of relationship between the sentence parts. When this occurs reading or listening comprehension is made more difficult.

The following excerpt adopted from a supplementary reader written for Nigerian schools illustrates the ways in which grammatical units can

be identified and their inter-relationship employed to speed text comprehension.

> This is the hideout of a gang of robbers. The police found it hidden deep in the forest. It is an old hut, full of rats. There was even a nest of rats in a hat on the floor of the hut. The police discovered the hut during the rainy season by following the ruts made towards it by the tires of the robbers' truck. They noticed that the truck running through the mud left a track that ran to the hut. It was easy but long to follow. After a long search the police found the truck hidden in some bushes.

The central idea of the above paragraph can be gained through a sensible utilization of the available syntactic and semantic information. This main idea can be reduced to this: The police have discovered the hideout of a gang of thieves. But the other supporting information in the paragraph can only be adequately extracted through a proper identification of word relations at both intra- and inter-sentence levels. Such an identification will reveal that the first pair of "it" refers to "hideout" but the third "it" refers to "the hut." Readers ignorant of the mass form of plural would find it difficult to link "police" with the plural pronoun, "they." In addition when students, especially those at the secondary school level, get to the last pronoun, "it", the first reaction will be to associate this "it" with "hut", in the preceding sentence. This is principally because young or inexperienced readers normally employ the minimal distance principle while reading (C. Chomsky, 1969). This involves the tendency of identifying the nearest noun as the antecedent of a subsequent pronoun. In the case of the cited paragraph, however, semantic and world knowledge could be additionally

used to confirm the correct antecedent for the particular pronoun in question.

Several investigations have shown that the comprehensibility of individual sentences can be judged by syntax. Such studies have highlighted the level of syntactic difficulty as a factor in the access to comprehension, Wang (1970); Mehler (1963), Epstein (1961), and Isakson (1975). Each of these studies has looked into just one or two aspects of syntax. The findings of these investigations cannot, therefore, be applied across the general area of syntax.

In the study undertaken, however, the broad range of syntactic structures was taken as a good determinant of comprehension difficulty. Wang (1970) showed that syntactic difficulty is more than just the length of sentence. Hamilton and Deese (1971) on their own part observed that "comprehensibility is better for sentences in which subjects and their predicates were immediate constituents than for sentences in which they were discontinuous constituents." The present study took a global view of syntax. Its main contention was that a good knowledge of the different syntactic structures would predict a parallel good performance in reading comprehension.

Two sets of tests were designed and these were presented to secondary school subjects. Part A focused on syntactic structures while Part B consisted of reading passages. The hypothesis was that those who did well in the syntactic structures (with the score of 80% and above) will do even better in the reading comprehension component.

The theoretical basis for the study was the transfer of skills across areas principle (TOSAAP). This, as the name suggests, stresses that whatever skills that are shown in a particular area will have the likelihood of being transferable. This specifically envisages a student skillful in handling the structural patterns of English being equally efficient in comprehending larger texts in English.

The subjects of the study were $L_2$ learners whose total exposure to English was rather limited and peculiar. For one thing such $L_2$ subjects come into the English learning situation after relative maturity in their mother-tongues. A large group of them especially those in the cosmopolitan areas acquire the use of jargonized English, or pidgin, before learning English formally. Some linguists have therefore observed that when such individuals learn English their productions and perceptions get interfered with by the deviant and contrasting forms from pidgin and the mother-tongue respectively (Spencer, 1971).

Syntactic Complexity and Sentence Decoding: Despite the fact that investigations on syntax and its effects on reading comprehension have been carried out from different perspective by various researchers, little has been done to trace the direct link between doing well in a test of syntactic structures and doing well in a test on reading comprehension passages. The literature on English syntax and its effects on reading will, therefore, encompass published materials dealing with English sentences and the processing strategies employed by readers of such sentences.

Dan Slobin (1979) considered "the correct placement of clause boundaries" a significant feature in the understanding of multi-clause sentences. In textbooks, except those written specifically for the lower elementary grades, there is usually a good proportion of compound sentences. This directly imposes some challenge on the reader. The problem is caused essentially by the necessity to distinguish between what looks like the word groups. Slobin in his research - "English Sentence Processing Strategies" - began by considering the strategies used for identifying clause boundaries in English. Identification of Constituent boundaries: One possible strategy is this; the listener or reader assumes that an initial sequence of noun and verb will be subject and verb of the same clause and that a following noun will be object of that clause, as in the following examples cited by Slobin.

1. The man sold the painting admired it.
2. The bomb rolled past the tent exploded.

On encountering sentence (1) above, the processor perceives the structure to reflect the noun-verb-noun pattern. But on realizing that the sentence does not end with "painting," the processor will most probably carry out a re-analysis. This would be done by regrouping the words in the sentence to something like "the man who was sold the painting admired it." Similarly in sentence (2) an initial analysis would give the erroneous interpretation, "The bomb rolled past the tent." Second attempt, after the false start, will show that the correct analysis is "The bomb which was rolled past the tent exploded."

The main support for the correct analysis in both of the above examples is the fact that in English certain elements of the sentence are optional and in these examples the omitted elements would be "that," the relative pronoun and the passive verb, "was."

Chapin, Smith and Abrahamson (1972), on their part, proposed a different strategy for establishing linguistic boundaries. Theirs rests on the main contention that the sentence processor seeks for the speediest way of completing a clause that has begun. The processor follows the most direct and least complicated route for establishing clause units. Thus, these investigators have contended that as soon as the processor notices what appears to be a grammatical unit he takes the prompt decision to close up the grammatical unit so that he can start another unit. If a string can be a NP it is assumed to be, "and that the next element heard will be part of some subsequent constituent." These investigators remarked that such a strategy will not work when sentences of unusual difficulty or pattern are presented to subjects.

Slobin has akcnowledged that cues are important factors in enabling language users to process sentences and identify correctly the information carrying units. In his words,

> Languages use a variety of devices to cue the part of speech membership of words - prefixes, suffixes, grammatical particles and so forth. Such markers are essential to the operation of sentence processing strategies.

Psycholinguistic experiments have been performed to determine the effects of relative words on speed and accuracy of sentence comprehen-

sion. Fodor and Garrett (1967) presented subjects with sentences which they were to paraphrase. Examples:

1) The man the dog bit died.

2) The man whom the dog bit died.

Fodor and Garrett hypothesized the presence of the relative pronoun should make a sentence less difficult to process "because the relative pronoun provides a surface structure clue to semantically crucial deep structure relationships." Thus, in the above pairs "whom" in sentence (2) provides a surface signal and in this case confirms that the noun, man, which precedes the pronoun "whom" functions as the underlying object of a relationship in which "dog" is the underlying subject.

Participants in the experiment performed better when the relative pronouns were present. This position remained constant whether the sentences were presented orally or in the written form. Results from such experiments have encouraged Slobin to remark that,

> In short, it is much easier for people to figure out the meaning of such a sentence if they have relative pronouns to guide them. These words serve as cues to more clearly identify the constituents of the sentence.

Hakes and Cairns (1970) used the phoneme monitoring technique to measure difficulty arising from absence of relative pronoun units. Examples:

A. The tiger the gorilla chased was ferocious.

B. The tiger which the gorilla chased was ferocious.

Findings showed that it takes a longer time to detect the (g) phoneme of "gorilla" when the relative pronoun was absent.

The main point of the above experiments centered on the processing strategy employed by the listener or reader. When the meaning is taken as the area of focus identifying sentence constituents cannot be regarded as the only activity required for accomplishing the task.

Filling Meaning into Discourse: A reader or listener does not go only after propositions but also after the reasoning behind the selection of some propositional form. One way through which total meaning can be gained is to utilize the syntactic signals and look for implications across sentences. Haviland and Clark (1974) studied this approach to implications by requiring subjects to read and understand pairs of sentences like:

1) Mary got some beer out of the car. The beer was warm.
2) Mary got some picnic supplies out of the car. The beer was warm.

According to their findings the second sentence took more time to process basically because the reader must himself come out with the implication that the picnic supplies included some beer.

Clark and Haviland (1977) have described the discourse-related dimension of sentence structure as resolving an unwritten agreement between speaker and listeners about the use of language for commuication purposes. Under this tacit agreement,

> ...the speaker (or writer) agrees (a) to use given information to refer to information she thinks the listener can uniquely identify from what he already knows and (b) to use new information to refer to information she believes to be true but is not already known to the listener.

In general what's given and what's new will not be stated overtly but both are usually revealed through the use of the appropriate syntactic forms. The following are four sample sentences with their given and new information.*

| Sentence | Given and New Information |
|---|---|
| 1. It is the boy who is petting the cat | Given: X is petting the cat<br>New: X = the boy |
| 2. It is the cat which the boy is petting. | Given: The boy is petting X<br>New: X = the cat |
| 3. The one who is petting the cat is the boy. | Given: X is petting the cat<br>New: X = the boy |
| 4. What the boy is petting is the cat. | Given: The boy is petting X<br>New: X = the cat |

Irene Athey (1977) proposes that perhaps a hierarchy of difficulty for processing syntactic structures does exist. She represents such a scale in the following broad manner.

From: simple to complex
familiar to unfamiliar
concrete to abstract
positive to negative

Athey presents a catalogue of structures that give children some problem. She cites some studies to provide an expanded view of the situation. Hutson and Shub (1974) found that children showed ability

*From Clark and Clark (1977, p. 93).

to differentiate between the focus of "and" as opposed to that of "but." Children's understanding approximated to this that "clauses which have a similar position on a dimension are joined with and, clauses which have contrasting positions on a dimension are joined with but." Hutson and Shub found that syntactic violations were greater in sentences calling for but than in those calling for and. This, Athey states, would suggest that but as a syntactic item presents a heavier linguistic burden on users of English. No specific details were provided on the relative degrees of difficulty identified between the two items.

Athey makes some reference to C. Chomsky (1972) who looked at different syntactic constructions and the problems they pose for children's comprehension. In the example cited: The doll is easy to see - Children naturally see this as similar to sentences like: The boy is eager to play. Chomsky found that the structures involving the following: easy, promise, ask, and although pose problems for children.

One main cause of potential confusion here is surface and deep structures. Take the verbs promise and ask. In the following sentences they both appear to have identical syntactic characteristics. But this is true only at the surface level as shown by the analysis.

A. John promised Bill to come.

B. John asked Bill to come.

In Both A and B John is the subject of the verb "promised," John also appears to be the subject of the second verb "to come" but in reality

John is the subject of the two verbs in sentence A. In sentence B, Bill is the subject of the second verb "to come."

Athey assesses the psycholinguistic view that simple, active affirmative declarative (or SAAD) sentences are easier to comprehend than the non-SAAD ones. She contends that while this may be essentially true there are instances when familiarity with certain types of statements would neutralize the SAAD or non-SAAD features. She says, "...we seem to respond, in some cases, directly to the meaning, while ignoring the syntactic structures of the sentence." What is being stressed here is that at times experience or intuition makes it possible to short-circuit syntax during the processing of sentences.

Athey also discusses the concept of relational dimension to our lexicon. Several sentences in English, she says, reflect our choice of forms in the context of a relational concept. One example would be this: At 6 feet 1 inch Matthews seems short for a basketball player. If this sentence ended after seems short most readers would find the sentence interpretation perplexing. This is because 6 feet 1 inch is far above the average height of man.

Athey acknowledges the definitely strong contribution of semantics in the comprehension process. Words, in her opinion, are by their role and form, relevant cues which good readers explore to advantage while working through their text.

Athey reviews some of the other methods previously used to test syntactic complexity. Distribution of parts of speech: This was found unsatisfactory since Templin (1957) showed that younger and older

children used the same proportion of verbs.

Sentence Length: The weakness in this has been that often sentence shortening may lead to syntactic difficulty. Donaldson and Wakes (1970) showed children having a greater tendency to say "that one's blue and that one's blue" rather than "they are blue" or "both are blue." For the same reason clause length is not an adequate determinant of complexity. However, degree of subordination could reflect the level of syntactic complexity.

Athey's paper is general but it shows some breadth and balance. She demonstrates a broad awareness of the different arguments on the syntactic contributions to language productions and comprehension. Even though her paper focuses mainly on syntax and comprehension processing in children,it is believed that some of Athey's observations are applicable to adult learners particularly those in the $L_2$ situation.

Fagan (1971) carried out some research to determine if the reading comprehension of grades 4, 5, and 6 pupils was affected by the number and/or types of transformations in the language of the passage they were requested to read. Forty-three transformations were identified for analysis and these were grouped in 5 categories - Embedding, Conjoining, Deletion, Simple Transformation and Position Shift. Fagan worked with the hypothesis "that both the occurrence of certain transformations within a sentence and the difficulty of individual words would contribute to children's comprehension of a text." This hypothesis agrees with Fagan's basic position that both vocabulary and syntax play contributory roles in the perception of

sentence meanings. But one of the related interest areas for Fagan was to assess the relative contribution of each to sentence perception. The findings showed that difficulty hinged more on transformation. Fagan, therefore, came up with the conclusion that syntactic effect is more critical on the overall sentence perception than is the semantic effect.

Part I of Fagan's research was made up of an analysis of the syntactic structures of two passages taken randomly from basal readers commonly used within the children's educational environment. These were used as a basis for identifying the 43 transformations. Students were tested by means of the Cloze technique. The results showed the following structures to be the most difficult for the students in approximately this order: Appositive; -- ing nominalization; pronoun -- genitive; Common Element Deletion;and Negative.

Merits of the Research: This has added to the growing opinion that there might indeed be some hierarchy of difficulty within the area of syntax. Because the passages used came from students' texts they would more likely have higher functional value.

Some observations made from the above investigations may not be exactly applicable to $L_2$ subjects. After assessing instances in which the reader or listener has to fill in gaps of information through the use of devices for drawing implications, Clark and Clark (1977) made the observation that,

> Speakers cannot be bothered to spell out each tiny bit of information they refer to, and so they leave the most obvious pieces for listeners to supply...

Such points as the above may work very successfully for native speakers. But in the case of $L_2$ subjects the tendency is that a minimum level of syntactic clues must be provided before subjects can successfully draw plausible implications from the text or utterance.

There is need to find out specifically the areas of strength and weakness in the $L_2$ users of English. The study of syntactic complexity and its effects on reading was aimed at helping to confirm or dismiss the accuracy of the following contention that, those who read well at the secondary school level are most likely to possess a good grasp of the major syntactic structures of English. The typical $L_2$ students who have developed some high amount of proficiency in the area of syntactic structures will normally be able to handle successfully other language dimensions, like reading comprehension.

Several theoretical propositions have been advanced regarding reading as it relates to this study. The serial process has been proposed by Gough (1972). This posits the letter-by-letter visual analysis of the material before the reader. The visual orthographic analysis leads to a positive recognition of the words and eventually the sentence by means of phonemic encoding. According to this model the higher processes of semantic and syntactic computations do not influence such lower processes as the orthographic and phonemic analysis. This is strictly a bottom-up approach to reading and under its strategy semantic clues should have no effect on determining meaning outcomes and as Brewer (1972) has pointed out, Gough's model "predicts

no effect of anticipated structure, since structure is never predicted; it is only derived in a letter-to-word-to-phrase order." This approach to reading would imply that a reader's performance on texts and individual sentences should not differ in any remarkable degree. This conflicts with the findings of some other researchers who have worked on the perception and production of words in isolation and words in discourse context. Perfetti and Goldman (1974) found that recall was higher for a sentence when it was part of a paragraph than when such a sentence was in isolation.

The top-down or hypothesis test approach has been proposed by Neisser (1967), Smith (1971) and Goodman (1967). The emphasis of this model is the set of anticipatory cues made use of by the reader. These theorists conceive of the reader as utilizing "redundancy and inference to reduce uncertainty about the text." Neisser even goes further to picture reading as "externally guided thinking." What the reader anticipates include words and their identity, grammatical units and their inter-relationships as well as gaps and assumptions to be understood through the utilization of world knowledge. In general the type of predictiveness conceived here probably refers to the linguistic elements of high frequency and these elements will be marked out by production repetitiveness, co-occurrence tendency and associativity. This model has supporters, prominent among whom is Johnson (1965). He performed experiments on how the organizational structure of sentences can affect recall. Sentences used include;

The tall boy served the dying woman.

The house across the street is burning.

Johnson hypothesized that most errors of retention would occur between major syntactic units rather than within them. One reason is the tendency to store information in probable syntactic word groups. Johnson's findings supported the hypothesis that the organizational structure of sentences follows some typical patterns and these in turn have important effects on recall. The critics of the hypothesis test model include Wildman and Kling (1978-1979) whose reactions have been summed up in their own words,

> It seems reasonable to assume that most of our reading materials is neither redundant nor predictive enough to allow advance production of a significant number of words. Wholly predictable materials would hardly be worth reading. Normal syntactic and semantic context could not support a hypothesis test method of reading.

A third theoretical approach to reading is based on the schema model. Rumelhart (1975), Ortony (1977), Schank and Abelson (1975) are prominent among those who identify the schema (plural is schemata) as a notion central to the comprehension process. In recent years more and more critics have asked the question, "What is the schema?" In the words of Rumelhart,

> A schema is an abstract representation of a generic concept for an object, event or situation. Internally a schema consists of a network of inter-relationships among the major constituents of the situation represented by the schema. Moreover, a schema is said to account for any situation that can be considered an instance of the general concept it represents.

Let us look at the following sentence: "The teacher entered the class." As we encounter the above we try to reconstruct the event described. We employ certain scripts or skeletal props on which to

base an overall frame for the event or situation being built up in our minds. The concepts that come to the surface during our thinking would not have been mentioned in the text. Specifically one would imagine that as the teacher walked in, there would most likely be some amount of silence. Class would just be about to begin. Many of the students would be looking at the teacher directly. There would be several other detailed possibilities depending on the physical location and the level of participants involved. One of the assumptions of the proponents of the schema theory is that it gives an accurate set of guidelines on what situation or picture is to be conjured up in our minds. But Rumelhart (1977) quickly added some qualifications when he stated that,

> (i) Schemata can differ with respect to the degree of detail with which they account for a situation.
>
> (ii) Ordinarily, a situation is not accounted for by a single schema, but by a set of inter-related schemata.

Despite such clarification, it is still not known how much of the schema notion is dependent on features like culture and shared background. Let us look again at the example just cited: "The teacher entered the classroom." In the Nigerian school situation anyone who read this sentence would have the following schema in his mind: "The teacher entered; students all quiet; students all stood up; students exchanged greetings with the teacher; class leader or someone near the door moved to help the teacher with whatever he was carrying...." All these extensions are, by and large, due to the cultural setting within which the students live. It is most unlikely that the schemata generated in the minds of the American reader would tally

point by point with those of the Nigerian reader. The pro-schema researchers would probably insist that the broad generalities are approximations that are adequate or useful in guiding the average reader or listener. The process of comprehension has therefore been seen to be primarily related to the schema notion. That has encouraged Rumelhart to propose the following definition.

> The process of comprehension is taken to be identical to the process of selecting and verifying conceptual schemata to account for the situation or text to be understood.

The above references made to other studies and the different theories of reading reviewed all confirm that there is no statement that could be pointed at as the universally accepted definition of reading. Neither is there a set of factors unequivocally proclaimed as being responsible for reading difficulties, especially among poor readers. What some of the researchers have identified as causes of reading problems have been described by others as contributing in no way to the difficulties readers encountered. Fagan (1971), for instance, found grammatical complexity in the form of sentence transformations to be a source of reading difficulty. Pearson (1974), on the contrary, found that grammatical complexity was often a catalyst to comprehension and recall rather than an obstacle.

The models of reading presented show that quite apart from the theoretical approaches of analysis by synthesis, hypothesis test and schema, some other models have also been proposed. Most of "these others" could be reduced to the interactive models which integrate the heuristic constraints of the hypothesis test approach with the decoding process characteristic of the bottom-up models. Anticipation

is seen as a key feature with these interactive models. Before orthographic decoding takes place, semantic and syntactic cues are employed to narrow down the candidates for the interpretative decision.

What is not known, however, is the most viable of these models for the $L_2$ learners. In ESL circles, opinions vary as to how much influence and in what direction syntax and reading could influence each other. It was expected that findings from the study would shed more light on what are the main patterns of influence in reading. The findings were also expected to reveal which of the reading models could be considered as the most useful in an ESL program.

Statements about performances by Nigerian students in English can only be meaningful if they are looked at against some well-established background realities. The patterns of some of these linguistic features are so intricate that they cannot be referred to without a digression, in extenso, to the language situation in Nigeria. For instance, it is suggested in some quarters that students whose parents or guardians pay meticulous attention to the forms and selections in their indigenous languages perceive exceptionally well the nuances of meaning represented by the structures of whatever language such students go on to learn. Other aspects of the prevailing condition includes the belief that certain students can never do well in English because they come from certain linguistic groups. This is why some Nigerian accents have now been taken as the shibboleth for would-be failure in English.

The next chapter looks closely at the linguistic situation in Nigeria.

## CHAPTER TWO

## ENGLISH AND THE NIGERIAN LINGUISTIC ENVIRONMENT

### English and the Indigenous Nigerian Languages

Despite the attainment of political independence in 1960, Nigeria (60 million, 1963 Census) has retained English as her national official language. So far no clear-cut analysis or description has been made of the structural or sociological relationship between the various indigenous languages. Certain Nigerian languages that are not exactly identical do nevertheless share strong linguistic commonalities in the areas of syntax, lexis and phonology. These resemblances are so strong in some cases that they have led to a situation where some of the languages could indeed be looked at as dialects of some more widely spoken language.

In 1971 Professor Bamgbose made the following observation,

> It is estimated that there are 400 different languages in Nigeria. Three of these languages (Hausa 15,000,000 speakers; Yoruba 10,000,000 speakers; Igbo 6,000,000 speakers, 1963 Census) are often referred to as the major languages of the country but very few persons speak more than one of these languages. In practice therefore English is the only effective medium of communication between Nigerians from different linguistic backgrounds (Bamgbose in Spencer, p. 36).

Many observers would disagree with Bamgbose's view on the proportion of Nigerians who speak more than one major Nigerian language. This is because in hundreds of thousands of cases both economic interdependence and marriages across ethnic lines have helped to produce individuals who have come to possess more than one home language or

$L_1$. Such special circumstances have in addition to heightening the degree of bilingualism increased both the physical and linguistic proximity between some of the different languages. It would therefore be misleading or inaccurate to describe the languages in Nigeria as mutually unintelligible. Perhaps of the twelve or so main languages only half a dozen -- Hausa, Yoruba, Igbo, Kanuri, Tiv, and Fulfulde -- fit into that description of being mutually unintelligible. In reality millions of Nigerians could be described as polyglots because of their mastery of some of these Nigerian languages which are not necessarily related in structure or origin.

There are some striking basic differences between these languages and English. The differences are borne out mainly in the areas of phonology and syntax. English has more vowels and consonants than any of these Nigerian languages.

In Hausa initial consonant clusters are practically non-existent. This imposes limitations on Hausa-speakers learning English. In Hausa (f) and (p) sounds are generally used interchangeably. The following examples illustrate the point:

| Hausa | English |
|---|---|
| fita<br>pita | go out |
| fili<br>pili | field |

Often too (f) is interchangeable with (h) as in:

| | |
|---|---|
| hudu<br>fudu | four |
| tsofo<br>tsoho | old |

In Igbo initial (r) and (l) occur in free variation whilst in Yoruba (s) and (z) have *pronunciation.* Hausa-speakers have some difficulty with the English initial sounds of (θ) and (ð) as in think and though, respectively. In addition, a Hausa speaker at the beginning level of English would tend to differentiate little or not at all within these pairs of English words:

| 1. | 2. | 3. | 4. | 5. |
|---|---|---|---|---|
| fit | feel | fear | fork | fan |
| pit | peel | peer | pork | pan |

The Yoruba learner on the other hand would face a different set of difficulties. He would generally have some problem with giving the appropriate phonemic value to the English sounds (s), (z) and (ts) as in seal, zeal and chill, respectively. Consequently the Yoruba learner *of English would constantly fail to make any distinctions in separate* items like the pairs below:

| 1. | 2. | 3. | 4. | 5. | 6. |
|---|---|---|---|---|---|
| sue | sulk | sell | seal | sick | sip |
| zoo | chalk | shell | zeal | chick | zip |

In the case of the Igbo speaker the distinction difficulty would arise when such pairs like the following are encountered:

| 1. | 2. | 3. | 4. | 5. | 6. |
|---|---|---|---|---|---|
| lent | lag | loan | late | lung | lock |
| rent | rag | road | rate | rung | rock |

At the syntactic level there occur significant similarities as well as differences between English and the Nigerian languages. As is true of English the Nigerian languages have the basic pattern of subject-verb-object (S.V.O.). Examples from Yoruba language:

Obirin yen fe ra iwe meta

Girl the wants to buy book three

(The girl wants to buy three books.)

In the area of subject-verb agreement the marker of concord in the Nigerian languages may not necessarily be carried by the verb. In this particular respect the languages have a lower degree of redundancy than English. In Yoruba, for instance, such grammatical relation might be shown by the attachment of a particle to the subject noun without any change occurring in the verb. The plural form of the above example would serve to illustrate this point:

Obirin won yen fe ra iwe meta

Girl these want to buy book three

(Those girls want to buy three books.)

In structure especially with regard to syntactic relations, Hausa is very different from the rest of Nigeria's languages. This, among other things, is essentially why Greenberg (1966) has classified Hausa as belonging to the Afro-Asiatic language family whereas Yoruba and most other Nigerian languages belong to the Niger-Congo family group. Hausa is very much like English in its superfluous use of markers. A sentence with a plural noun will, for instance, attract a plural adjective, determiner and verb. Example:

Wani baba mutum yana zuwa

An important person is coming

In plural form the above becomes

Wandansu manya mutane suna zuwa

Some important persons are coming

The Nigerian languages fall into two groups with regard to their noun phrase (NP) behavior. Hausa is, again, similar to English in having the NP pattern of Determiner + Adjective + Noun (Headword). Example:

wannan sabon shekara

this new year

But Yoruba, Igbo and most other Nigerian languages have their nouns followed by adjectives, which is unlike the English form. Example from Yoruba:

Obirin kekere kan

girl small a

(a small girl)

The above descriptions have concentrated on what would constitute the learners' problems while learning English in Nigeria. The picture has also portrayed the fact that Nigerian learners of English do not fall within one neat single learning group.

Influences of Culture, Government Policies and Pidgin English

The structural distance between English and the indigenous Nigerian languages does inhibit progress in English learning. In anthropological linguistics some scholars argue further that one's culture sheds a strong influence on the dominant interpretation that one makes at any given socio-linguistic situation. This automatically suggests that the responses made by the foreign learner of English especially at the semantic cum syntactic level might not necessarily tally with those of the native speakers. It is equally plausible

to speculate that even among the various socio-ethnic groups in Nigeria linguistic interpretations of daily experiences would be different. As Clyde Kluckhohn (1962) has said,

> Every language is a special way of looking at the world and interpreting experiences. Concealed in the structure of each different language are a whole set of unconscious assumptions about the world and life in it. The anthropological linguist has come to realize that the general ideas one has about what happens in the world outside oneself are not altogether "given" by external events. Rather, up to a point, one sees and hears what the grammatical system of one's language has made one sensitive to, has trained one to look for in experience. This basis is the more insidious because everyone is so unconscious of his native language as a system... (Kluckhohn in Anderson, p. 45).

In 1977 the Nigerian federal government declared Hausa, Yoruba and Igbo as "the three major languages of the country besides English" and that each child "should be encouraged to learn one of them." The foregoing has not been the only perplexing side to the multilingual situation of the country. Ever since the advent of international trade that involved Europeans of Spanish, Portuguese, French and English backgrounds, another variety of English called pidgin had evolved in Nigeria, especially in the coastal south. Its growth was quickly enhanced in the early 20th century through commercial activities across ethnic lines. Theoretically when two or more languages come in contact one major possible consequence is the development of a "completely" new and different medium or approximate language. Pidgin is an approximation of one or more of the languages that are in contact. Jespersen calls it "jargonized language", while Hockett (1964) has called it "substitute language".

In describing the Nigerian pidgin the Nigerian phonetician, B. Mafeni (1971) stated among other things that,

> Although the different varieties or dialects of Nigerian pidgin are nearly all mutually intelligible, they vary in the identity of the vernacular languages which contribute or have contributed to their phonological, lexical and syntactical resources---Some of the variation deriving from this difference of substrate is constantly being reduced by certain standardizing influences such as the increasing mobility of people within the country (itself a cause of the spread of pidgin), inter-tribal marriage, the radio...(Mafeni in Spencer, p. 97).

Today one could add to the list of standardizing influences. This would include the television, imported films and popular pamphlets. The arrival of the television with the consequent influx of American films, especially those with snatches of Black Vernacular English (or BEV) as well as incessant radio and television advertisements in pidgin have all given this "substitute language" a new crescendo in Nigeria.

The structural and syntactic forms of pidgin do not bear much resemblance to English. Instead it is more or less an extension of the typical indigenous Nigerian language - Yoruba. The following characteristics are the most prominent for pidgin English:

Syntactic Simplification

Generally inflection is absent and syntactic relations are indicated by particles or auxiliary words. But auxiliary verbs as known in English are not used. There is an absence of the morphological units like - ed, for past tense or - s for plural forms. In pidgin English, words are monomorphemic so the formation of plural is

achieved through the use of an additional word that relates to the headword, as in:

singular: pikin (child)

plural: pikin dem (children)

Typically speakers of pidgin avoid consonant clusters and insert vowels between such consonants when met. Example: stupid→situpid.

In general, English and pidgin English have had a symbiotic kind of relationship in Nigeria. The just-out-of-school kind of reader usually functions at the semi-standard cum pidgin level of English. This particular situation was noted by Obiechina (1972) when he stated that,

> The authors, constantly aware of the educational limitations of their readers, control their language and style to take care of such limitations. Thus, Cletus Nwosu says in his pamphlet 'I have made the book as simple as possible so that an averagely intelligent schoolboy can enjoy it without his dictionary by his side.' By and large, however, the popular market literature appeals mainly to new literates and the lower level of the literate group which has a constant demand for light, simple reading matter (p. 11).

## Characteristics of the Nigerian Situation

When observed from a socio-linguistic perspective the circumstances and features described have led to a situation in Nigeria that looks like this:

a. Most students are bilingual or at least demonstrate some semblance of being so.

b. The excessive pressure on the government and school system has made the professional training of teachers a secondary consideration. Students are therefore often thrust under

the custody of those who themselves are in need of guidance by way of $L_2$ production and perception.

c. The textbooks used have often been imported prints that reflect in little or no manner the peculiar socio-linguistic circumstances of Nigeria.

d. International exposure, economic boom and historical experiences have led to the spread of contrasting educational outcomes. On the one extreme is what could be called the pidgin-type education and on the other the private-school model. While the former belongs to the average member of the society and the latter to the fortunate few, a good proportion of the population is caught between the two poles.

Figure 1 below captures the student's dilemma. He is caught between some circles the lines of which have neither developed nor dovetailed.

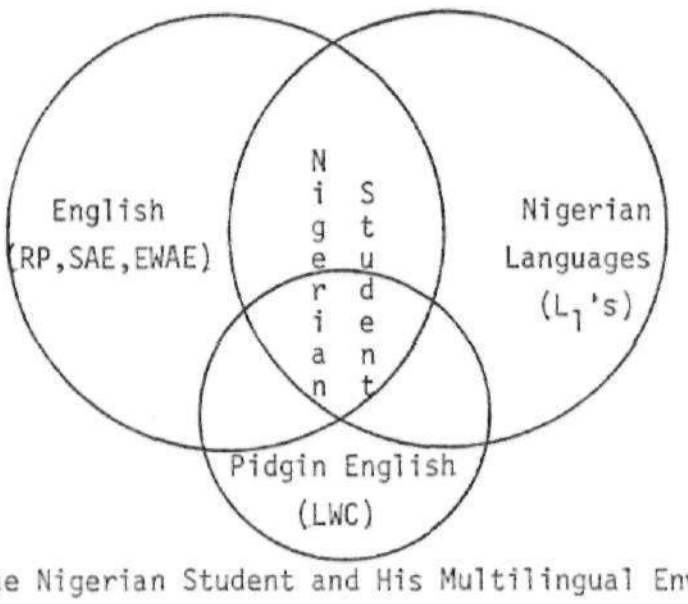



Figure 1. The Nigerian Student and His Multilingual Environment.

Figure 1 (Continued)

Key to Abbreviations: RP-Received Pronunciation; SAE-Standard American English; EWAE-Educated West African English; LWC-Language of Wider Communication; $L_1$'s-First Languages.
(Also see maps and charts in Appendix)

The main qualities of the pre-1960 Nigerian students in educational terms were assumed to have included:

a) The ability to use words in expressions with some fair amount of confidence. More than this was the highly treasured skill of passing examinations, a feature that was indicative more of a response flair than of a general language ability.

b) The area of grammar and reading witnessed an excessive emphasis on memorization and stilted imitation, respectively. Yet despite these weaknesses the few educated Nigerians were regarded with high esteem. Some observers felt that the enlightened minority showed a good account of themselves in academic performance. This, as it were, overshadowed the students' inadequacies in the different language areas like grammar and reading.

One of the most intriguing and persistent questions of English in Nigeria is determining specifically the level at which Nigerian users of the language operate. Whether one thinks about the population in general or the students in particular the picture is blurred. The prevailing conditions have drawn various comments including those from Bamgbose (1971) to the effect that,

> The point about English in Nigeria is not that it is different from British or American English. It is rather that there are several varieties of English 'ranging from

> something very near standard English to the patois of the market place.' (Grieve 1964, Bamgbose in Spencer, p. 39).

It is the view of the present writer that only a systematic investigation could lead to some detailed knowledge of the specific levels of Nigerians' performance in the different areas of English.

Through a carefully organized investigation, like the study undertaken, it might become easy to locate those areas of language skills the Nigerian students have gained mastery in. If, for instance, the students have been trained or drilled to answer well questions on syntactic structures, this would show through their performance on the tests given the selected subjects. Ordinarily it would be useful and informative to know if good performance in the area of syntactic structures is indicative of a very high level of language skills. Sometimes a good performance in such areas like syntactic structures reflects the fact that such students have been successfully drilled in making the correct responses to questions under examination conditions. Thus, it is the case that in many instances what is shown by an examination score is usually a far cry from what the students are capable of producing in actual life situations. Unfortunately this dimension, interesting though it is, could not be taken up in the study. The scores obtained by the students in the tests were to be taken at their face value and accepted as a true index of such a student's standing in the area concerned. In this particular regard the reading comprehension tests are usually more reliable. This is essentially because the students are generally called upon to utilize the same skills of organization and discrimination that they normally

would use in out-of-class or non-examination situations.

There are two other characteristics which a detailed investigation like this study was expected to help provide more information about. These were: 1) the culture-related aspects of students' grammatical selections from their responses to certain questions, and 2) the level of world knowledge possessed by students, especially while reading at the secondary school level.

Cultural traits do influence the grammatical productions of ESL students in Nigeria. Such influence spans across the areas of phonology, vocabulary and syntax. If we take the area of syntax we observe that certain kinds of constructions have become "standard forms" in Nigeria even though these constructions deviate from Standard English (or Received Pronunication) or Standard American English. An example is the present continuous tense. In Nigerian English this form is used in instances where Standard English would normally use present simple. The Nigerian construction is probably an outgrowth of the major indigenous languages. An example is:

"What's your father's profession?" the visitor asked.

"He is selling books," the student replied.

The interesting point here is that even though the above response could be acceptable standard English in some contexts, in this particular instance it should normally be inappropriate. For many Nigerian ESL students the "-ing" marker does not convey a time focus different from that revealed by the present simple tense. It is therefore common to see that the difference in aspect is not usually indicated. Whether such a difference in aspect will be recognized when used is

another matter. The concept of time is a basic feature of English syntax. The failure to use it is often indicative of a narrowness in syntactic awareness. It is expected that the study would help trace the patterns of influence between English and the major indigenous languages.

The ESL circumstance makes it impossible for the Nigerian students to have a good background in some of the themes, or settings or ideas presented in the reading material. This situation naturally increases the challenge posed by the unfamiliar elements in a text. Exactly how much such a limited general background or world knowledge reduces the students' reading performance is not known. But the contribution of world knowledge to successful reading has been emphasized by language specialists including Oller (1970) and Athey (1977). The study was expected to make an important contribution by tracing some of the impact of this limited world knowledge on ESL readers.

The foregoing paragraphs have only touched generally on the background characteristics considered relevant in discussing the general language competence of ESL students in Nigeria. Some of the points made are so general that they will only become more informative if supported with the necessary data. At the onset of this study, it was considered feasible to use a set of test items to tap the patterns of Nigerian students' performances with syntactic structures and reading comprehension.

In Chapter Three a closer look is taken at the selection and validation of test items and procedures of the study.

## CHAPTER THREE

## SELECTION AND VALIDATION OF TEST ITEMS AND PROCEDURES OF THE STUDY

The purpose of this study was two-fold: 1) to investigate the performances of ESL secondary school subjects (in Nigeria) with syntactic structures and reading comprehension, and 2) to establish whether there would or would not be high positive correlations between performances with syntactic structures and reading comprehension.

Another aim of the study was to compare the 3rd year subjects with the 5th year subjects. This comparison was to ascertain whether there would or would not be any significant differences between the two groups based on the duration of exposure to English.

The study was also intended to show whether the difference in location between urban and rural schools did or did not carry significant consequences in linguistic performances.

This chapter deals with the following aspects of the study: test items which were used to elicit responses (at both the pilot test and the final test stages) that would indicate the subjects' specific levels of syntactic and reading skills, the validation of the test items and the procedures of the study.

### Test Items

Language learning has for ages been inundated with floods of theories and views, many of which have been diametrically opposed to one another. These conflicting theories have in turn led to diverse opinions on second language teaching and practices. The greatest of

these controversies has, in the words of Chomsky (1965), ranged between the empiricists and the rationalists. The empiricists, on the one hand, have propounded that language is habit-formation which is, therefore, very much tied to the notion of stimulus-response. The rationalists, on the other hand, have proposed that language's most pronounced feature involves its innateness. These rationalists have, on the strength of the innateness hypothesis, emphasized the spontaneity with which humans acquire language.

As a consequence of the above conflicting views imitation through mechanical pattern drills is emphasized by the behaviorist-inclined language experts; whereas the believers in the spontaneous growth of language have stressed free communicative classroom exchanges or productions. Since language learning, especially in the ESL situation represents a combination of the opposing views described, any well-designed test in the ESL situation must include both mechanical and communicative skills.

One practical way through which the language attainment of learners could be measured is by the use of proficiency tests. As Croft (1972) has stated,

> At times we need to know whether a student is proficient enough in English to perform certain tasks or undertake a training program where English is the language of instruction. We prepare a proficiency test to help make this determination. The score in a proficiency test is an indicator of English ability.

The transformational-generative linguists like Chomsky (1957, 1968) distinguish between competence and performance, deep and surface structures. These transformationalists analyze language at four main levels: syntactic, phonetic, semantic and lexical. In ESL context the main components of language are listening, speaking, reading and writing (Rivers, 1968) which are generally learned approximately in that sequence. At the beginning of a language program, students learn to listen to the correct oral productions of the target language. During this early learning period the students also learn to produce the correct sound combinations of the language being studied. Writing is concerned with combining correctly words and word groups to convey different meanings. Reading involves identifying the relations between orthographic units and the sounds they represent. The listening and reading dimensions are of particular importance. For as Sydney Sako (1972) has observed,

> The listening and reading comprehension test is probably used more than any other combination to measure the integrated language skills. This type of test produces scores that correlate highly with success of predicting students' ability to acquire instruction in English.

Because English is a widely used international medium of contact and because of its special functional status in the ESL environment, the spoken form of English has gained increased attention. Normally for an English test to be useful and functional in such circumstances the test should cover all the major areas of English. For as Heaton (1974) has stated,

> It can thus be argued that fluency in English - a person's ability to express facts, ideas, feelings and attitudes clearly and with ease, in speech and in writing and his

> ability to understand what he hears or reads - can best be measured by tests which evaluate performance in the language skills. Auditory and reading comprehension tests, oral interviews and essays assess performances in those language skills in real life.

But desirable as this might be, oral English testing, especially in the ESL situation, is always highly involved and time-consuming. With regard to this study it was decided that the best way to accommodate the oral production component to a proficiency test in English was to have the oral component subsumed under dialogs. These dialogs centered on different structural/semantic forms with the questions framed in a manner that suggested the center of interest.

West African School Certificate and Cambridge School Certificate-Type Tests

The English language has become so intimately tied up with science and technology and international politics that testing English in itself has exploded into a booming business. Thus, there are today several English language proficiency examinations, e.g., the Cambridge Proficiency Examination, the Michigan Tests and the Testing of English as Foreign Language (TOEFL). Such tests in the words of Davies (1977) "all imply that a common standard is being applied to all comers."

To test the ESL Nigerian students' language proficiency a test in syntactic structures and reading comprehension was partially adopted and partially designed. The investigator scrutinized past West African School Certificate and Cambridge School Certificate examinations. Sixty questions on syntactic structures and 20 on reading comprehension were pooled together. The syntactic structure questions

formed Part I and the reading comprehension ones formed Part 2. The syntactic structure questions covered four major syntactic areas while the miscellaneous items covered other general structural forms. The four syntactic structures were the following:

Complex Verb Phrase

This involved the use in one verb phrase of several modals or modals and auxiliaries together with the main verb. Example:

*[26] But for the timely arrival of the police, the suspect .....by the angry crowd.

Each question was followed by a set of possible answers, with the subject being directed to select the most appropriate option:

A. will be lynched C. was being lynched
B. was lynched D. would have been lynched.

In most Nigerian languages the different forms of the past tense are represented by just one verb - the main verb in the simple English sentence. This feature of just one verb in the Nigerian languages makes those languages different than English where some shades of the past, like the past continuous and the past perfect, are reflected by the addition of modals or auxiliaries to the main verb. Such combinations help to bring out the specific aspects of time carried by the verb unit. But the extension of the main verb through the inclusion of modals and/or auxiliaries automatically makes the verb unit more complex for the ESL learners.

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*Actual number on final test is indicated in brackets.

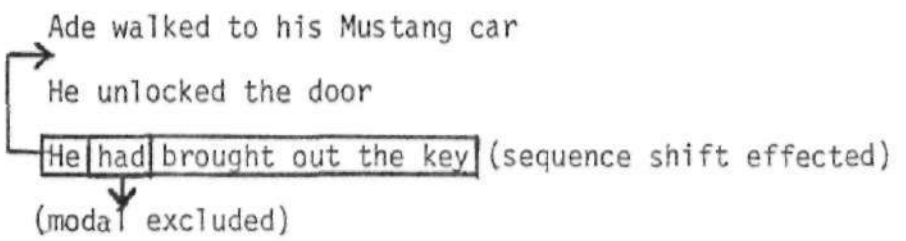
Often the surface arrangement of some pieces of information makes it impossible for the ESL learner to identify which piece of information actually preceded the other. The short episode below would pose some problem for the typical ESL learner especially if such a learner is required to resolve the actual sequence of the episode.

Ade walked to his Mustang car

He unlocked the door

He had brought out the key

Only the skillful and alert ESL user of English would recognize that in the actual chain of actions the activity in the last sentence above preceded the action in the second sentence. Thus a deep level understanding will imply further rearranging the chain of actions in the following manner:




Thus, a good grasp of the modal would help indicate that "had" in the last sentence specifies the actual order of occurrence of the individual actions contained in the short narrative.

Several grammarians have suggested that the verb may be the most significant part of the sentence. The main reason for this observation is that change in time perspective or function in a

sentence is usually indicated by alternation of the verb form. Some examples from the test items will clarify this point.

[26] But for the timely arrival of the police, the suspect .....by the angry mob.

A. will be lynched
B. was lynched
C. was being lynched
D. would have been lynched

Option A: This provides a strong distractor especially for the ESL reader who can correctly paraphrase the first part of the sentence to something like: "If the timely arrival of the police hadn't occurred...." However, even though "will" shows a time notion the form carried by "will" eliminates the sense of "future in the past." The idea conveyed by the first part of the sentence reveals that the information contained in that clause unit has a past bearing. This is reinforced by the phrase "the timely arrival."

Option B: This carries an assertive completion of the information initiated by the first part of the sentence. However, the lexical item "but" signals that the meaning carried by the first part of the sentence should be in contradistinction with the parallel clause in the second part of the sentence. Thus, the only kind of syntactic unit that would make sense is a non-assertive clause. This requirement rules out Option B but a reader who did not pay attention to lexical signals as potential carriers of grammatical meaning would miss this important point.

Option C: This might be considered a plausible unit for completing that which was started in the first part of the sentence.

However, it is disqualified on the grounds that the meaning of Option C is assertive and this does not agree with the specific implication of the first part of the sentence. However, English, like most languages is full of redundancies and many ESL students would be inclined to think that the combination of Option C with the rest of the sentence is another instance of such redundancies. They would not detect the conflict between: "was being lynched" and "but" which is in the first part of the sentence. Option C will, for these reasons, be a wrong choice. It is therefore a reasonable distractor.

Option D: This verb unit represents a non-assertive declaration which has a past time focus indicated by "would" and "been." Option D, like the other options, is in the passive form and the fact that "would" is sometimes used without any implication of a past notion could easily discourage ESL learners from selecting Option C as the most appropriate choice. Many ESL students would not be able to differentiate the use of "would" in Option D from, for instance, the use of "would" for politeness as in: I would not mind your waking me up.

[41] When asked what her brother does, Ann answered, "He .....in the dockyard."

A. is working
B. working
C. works
D. be working

Option A: In most Nigerian languages the option "is working" would be the most appropriate answer to the above question. This is because the information usually framed in the present simple in English

because of its habitual nature is not so treated in most Nigerian languages. Thus, an ESL Nigerian student whose father is a book salesman would most likely say of his father: "He is selling books." Such a syntactic form would only be appropriate if there were an additional adverbial specifying that the information carried by the complex verb phrase represents a state of activity or being that has begun but has not been terminated. A typical example of such would be the following sentence: "The players are moving across the court right now." A situation like the one represented in the above sentence is often transmitted by an action verb. Option A does not meet all the above criteria, it would therefore be a wrong choice. However, it still remains a strong distractor.

Options B and D: These are forms that are used interchangeably in pidgin English and have come to be heard by ESL Nigerian subjects as legitimatized selections in a socio-linguistic environment where pidgin exerts a strong influence on people's language forms. In addition, many Nigerians with access to the T.V. would have heard these syntactic forms like: He working in the dockyard or he be working in the dockyard, uttered by Black American actors who in their roles show, among other things, the variety of Black vernacular English (or BEV). Such "imported linguistic influences" would add to the number of ESL Nigerian subjects who would jump at any of the two options B or D as the right one. These options are therefore strong distractors but should not be powerful enough to confuse ESL students with a firm grasp of English.

Option C: The forms of the other verbs in the original question - "When asked what his father does" - suggest that Option C fits the rest of the sentence naturally. It is the correct choice largely because its choice is determined by the semantico-syntactic constraints of the stated part of the sentence. [The fact that Option A as it looks is also grammatical, would induce some ESL students to look at Option C merely as another distractor.]

Despite the recognizable socio-linguistic problems the ESL Nigerian students would face when given the above structures, it was considered appropriate and valid to administer a test with such items on these learners. First of all, the language component of these ESL students' secondary school syllabus emphasizes only the forms of usage that are standard English. Secondly, those with three or more years of exposure to English at the post-primary level would normally be expected to have broken away from the shackles of deviant English heavily popularized by pidgin.

Paraphrase of content through alternations of syntactic forms like NP, VP, Conjunctions and Conditionals. Examples:

[21] Joe: You don't mind doing this work for me, do you?

Anne: No, I don't.

Anne means that she,

A. will do the work on certain conditions
B. won't do it at all
C. is prepared to do the work
D. will reluctantly do the work

Options A, B and D would all be appreciably "distracting" because many ESL subjects would likely take Anne's statement at its surface level and would therefore interpret it as an absolute negative.Any such analysis would be wrong because Anne's response cannot be properly interpreted if it is isolated from the tag question that had been uttered by Joe. A main source of problem here is the relationship between the English tag and comparable constructions in most other Nigerian languages. The forms of the latter bear some superficial resemblance with the English tags and these superficial similarities have been sources of interference. As Chinebuah (1976) has succinctly stated it,

> It would appear that grammatical deviance is frequent in instances where the realizations of a semantic category in the $L_1$ and $L_2$ bear some formal resemblance to each other. On the other hand, errors deriving from the characteristics of the $L_1$ do not, as a rule, occur in instances where the realizations of a semantic category in surface structure are formally either identical or very different in the $L_1$ and $L_2$.

[44] The principal promised the students to sit the exams.

This means that,

A. The principal will take the exams
B. The principal will set the exams.
C. The students will take the exams.
D. The principal will remain with the students during the exams.

Option A: This may not immediately strike the ESL student as the right option mainly because of the superficial syntactic resemblance between this paraphrase and other sentences which follow the formula below:

$$NP_1 + Vb + Obj_1 / NP_2 + Vb + Obj_2$$

For such a structure we have a sentence like the following:

The principal persuaded the students to eat the food.

Here, $NP_1$ + Vb + $Obj_1$ = The principal persuaded the students

$Obj_1/NP_2$ + Vb + $Obj_2$ = the students to eat the food.

One main feature of the above structure is that $object_1$ - the students - also functions as $NP_2$ and is therefore the subject of the second clause, "to eat the food."

The syntactic analysis of Question [44] is significantly different. This is because the verb "promised" behaves in a peculiar syntactic manner. In [44]: The principal promised the students to take the exams, the analysis is as follows:

$NP_1$ + Vb + $Obj_1$ [$NP_1$] + Vb + $Obj_2$

$NP_1$ + Vb + $Obj_1$ = the principal promised the students

$NP_1$ + Vb + $Obj_2$ = [that] the principal would take the exams.

The crucial point here is that the subject of "promised" is also the subject of "to take" (the exams). Thus, the structural analysis confirms that the principal would indeed take the exams. With most other English verbs $object_1$ plays a dual role: that of object of the first clause and that of subject of the second. With the verb'promised' it is $NP_1$ that plays the dual role.

In addition to the syntactic peculiarity of the verb 'promised', a socio-linguistic source of confusion is likely to be created by the appearance of the lexical item "exams" in Question [44]. The idea of a principal taking an exam would likely create some puzzle for the ESL students in Nigeria.

[A driving test, perhaps, but he's very unlikely to be subjected to a potentially embarrassing pen and paper ordeal!]

Option B: This is the kind of distractor that would trouble those readers who did not pay adequate attention to the semantic content of the overall sentence. ESL students in Nigeria at the secondary school level are expected to master the structural and phonological properties of common words and sounds, respectively. They would therefore be expected to be competent in seeing the difference between "to sit" and "to set." This option was therefore seen as an appropriate distractor.

Option C: For most of the reasons already stated above this might be selected by several average performers as the correct answer. It was however expected that those who had attained a high standard of English syntactic structures would do well on Question [44].

Option D: This was considered a reasonable distractor since some ESL subjects could easily hypothesize that "will sit the exams" is a polysemous expression; consequently one of the interpretations could be Option D: the principal will supervise during the exams.

Identifying Pronouns and Their Referents

These items were included principally to test the knowledge of ESL Nigerian students on substitution at pronominal level. Examples:

[36] Akau wanted to borrow some books from the library but found .....closed.

A. they
B. them
C. it
D. their

This test item was intended to examine two main points: 1) ESL students' knowledge of the pronominal use. It was intended to assess the popular contention that antecedents are usually more difficult to identify when they form part of a discontinuous constituent than when they appear in a normal structure; 2) the item was also aimed at examining the ESL students' level of world knowledge. Often an apparent ambiguity would cause no problem to readers because the readers are able to employ their knowledge of the world to resolve whatever ambiguity there might be.

Options A and B: These might be considered plausible options because "they" and "them" would give constructions that are syntactically possible. Some ESL students might think that either of these options might implicitly refer to the librarians who might have closed. The students who jump to such conclusions would be wrong in selecting any of these distractors. They were, however, good distractors.

Option D: This was not considered a strong distractor but it was still considered useful enough to identify those who were doing too much of guess-work.

Option C: This is the correct option. It was felt that the good performers in syntactic structures would detect that "it" cannot refer to "books" but can refer to "the library."

[40] The director's wife was seriously ill so we visited.....

A. her
B. them
C. she
D. hers

Options B, C and D: These were all considered averagely good distractors. B (them) agrees with most Nigerian languages which

would select the plural pronoun for any antecedent of high status.

Option C. This was considered a relatively powerful distractor for ESL students heavily influenced by pidgin English. This is because in pidgin, Option C (she) would normally be the acceptable pronoun to be used.

Option D: This was intended to assess the ESL students' knowledge of pronouns and context of use. In other situations Option D (hers) would be grammatical but in this context it is not. Option D was therefore considered a good distractor.

Option A: even though this is the correct answer many ESL students would most likely hesitate before selecting it. The reasons already specified above would contribute to their hesitation.

Intra-Sentence Linkers and Adverbials

This group of syntactic structures was intended to test the ESL students' perception of sentence and textual cohesiveness in terms of aspectual and situational meaningfulness.Examples:

[35] Everyone assumed he would score.....his shot was wide.

A. because C. if

B. therefore D. but

Options A, B and C: These were expected to tax the ESL students' level of syntactic plausibility. The selection of any of these three options would produce a sentence that is grammatical. But such a sentence would not make much sense if the overall meaning produced is thoroughly considered.

Option D: This is the correct answer but would not be easily recognized except by those students knowledgeable about the internal sentence structure and about the use of linkers like but, and, however, therefore, etc.

[18] I won't bolt the door.....

A. so you get home late. C. so that you will get home late.

B. when you got home late. D. in case you get home late.

Options A, B and C: Since the selection of any of these options would give a grammatical sentence, the options were all considered distractors with good discriminating power - they would help draw a distinction between ESL students very good in syntactic structures and those that are weak.

Option D: This option was meant to test the students' knowledge of conditionals in the final clause position. ESL subjects who have mastered this syntactic structure were expected to perform very well on this particular test item.

Miscellaneous Syntactic Structures

These structures included other syntactic forms commonly encountered in everyday English. They covered such structures like -ing type of subjects, question tags, clausal subjects, word order, subject-verb agreement and number forms (singular/plural). Examples

[55] Besides the Game Reserve, the Americans visited.....
places in Nigeria.

A. all the exciting many other B. all the many other exciting

C. the many other all exciting D. all the other exciting many

Options A, C and D: These were all considered reasonable distractors because most indigenous Nigerian languages, with the exception of Hausa, have the characteristic of post-modification. The correct pattern of NP modification in English would therefore present some amount of problem to ESL Nigerian students. The task becomes even more awesome when there are several items of modification in the NP unit. Most of the ESL students do not have a full command of the points shown on the table below:

| Determiner | Ordinate | Epithets | Classifiers | Head | Qualifier |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| the | two | heavy | match | boxes | on the table |
| those | few | red | plastic | bags | by the sidewalk |

The above table shows the following points about English: The Classifer is closest to the noun head; Epithets usually come before the Classifer; Qualifier comes after the head; the Determiner is usually the first item except where a pre-determiner has been used. All these points might not be known to the typical ESL Nigerian student, the distractors were therefore considered appropriate.

Option B: This is the correct answer but the occurrence of a pre-determiner would most likely pose some problem for the ESL student except the most competent in structural form of word order.

[60] The Committee thanked the public for giving the police.....

A. those information.
B. some informations.
C. some information.
D. informations.

Options A, B and D: These were included to test the ESL subjects' knowledge of number in English. The concept of singular or plural form is often revealed in English through the verb form required by a noun. In many instances, as in Question [60], the verb form would not help to determine which of the options would be the most suitable. This question was another instance where some good control of the English vocabulary would complement the student's syntactic knowledge. Moreover, in many Nigerian languages the pattern of singular/plural nouns does not agree with the features in English.

Option C: This is the correct answer but was expected to be known only by those ESL students with a good command of both the English syntax and vocabulary. Many ESL students would likely think that "some" only goes with those words that take "s" in their plural forms. The mere fact that this option begins with a pre-determiner - all - might also create some problem for the not-so-competent ESL students.

The Reading Comprehension Questions

In most language tasks, the ESL students are usually called upon to demonstrate some reading-related skills. Three of these skills were considered to be of paramount importance in most ESL reading situations. These three skills were identified for examination in this study and the areas they covered were the following: 1) literal comprehension, 2) inferential comprehension, and 3) identification of pronominal words with their referents.

Literal Comprehension

A most fundamental skill in reading is that which calls on the reader to show a grasp of what has been stated in print. Often examiners have taken this skill for granted or have assumed that since it is such a basic requirement in reading every literate student automatically possesses the skill. One main aim of this study was to identify false assumptions about language skills from the realities of the true situation. It was therefore necessary in this study topay some particular attention to those skills that characterize the attainment of a minimum level of language competence. The reading comprehension questions were considered the most suitable for tapping the general but basic reading skills. Example:

[9] From the passage we realize that: (Appendix A, Passage A)

A. the crop yields in the country are high
B. The crop yields amount to that expected
C. The farmer knows much about crop yields
D. The crop yields have been consistently low
E. The country has many reasons for high crop yields

Options A, B, C and E: All these were regarded as distractors with satisfactory discriminating power because each could be remotely considered as deducible from the text. Inattentive readers could easily select any of them.

Option D: This is the correct answer. It is mentioned in the first sentence of the fifth paragraph. The operative words in the relevant sentence are "always fallen below expectation", for the statement is both general and specific. It states that: one other reason why crop yields have always fallen below expectation in this country is the damage done to food crops by insects, especially the grass-

hopper. The attentive reader was expected to notice that "why crop yields have always fallen below expectation" provided direct evidence to confirm Option D (the crop yields have been consistently low) as the most appropriate option.

Inferential Comprehension

In normal reading the ESL student is constantly required to make certain judgments or draw conclusions based on the implicitness of the text. Such implied references would usually be detected by scrutinizing the writer's choice of words and use of certain expressions to effect some special meaning. Example:

[19] The chief's statement revealed that he: (Appendix A, Passage B)

A. didn't regard anyone with respect
B. hadn't patience to listen to others
C. found it difficult to settle disputes
D. considered the village one big family

Options A, B and C: These were all considered reasonable distractors since a good number of ESL readers would regard them as possible conclusions that could be drawn from the text.

Option D: This is the correct answer but only a thorough perception of one of the paragraphs (in passage 2) would reveal this fact. The relevant section is in paragraph four and it states that, "I want my village to be educated, and I am always proud of clever boys like you. But don't spend all your time on book learning and forget your own people."

Identification of Pronominal Items With Their Referents:

This was considered a skill necessary for recognizing the manner in which the different parts of a sentence or a text are inter-related. It was considered essential for ESL students to possess, in addition to some knowledge of the overall text content, an understanding of how the different points inter-penetrate each other. Questions on pronominal items and their referents were framed to test this skill of inter relationship of sentences or ideas. Example:

[2] The underlined word, this in paragraph one refers to:(Appendix A, Passage A)

A. quelea bird
B. wild grass seed
C. masakwa crop
D. the usual diet
E. considerable damage

Options A, C, D and E: These were all mentioned in the first paragraph and could be considered potentially as the referent to the pronominal word, "this". But the skillful ESL students were expected to be able to detect the lack of a perfect fit between the underlined word "this", and all these options. For the purpose of discerning good language users from the average or poor language users, these options were considered reasonable distractors.

Option B: This is the correct answer but can only be noticed by those readers very efficient in following the train of thought and identifying grammatical relations between a piece of information and its pronominal substitute. In the text, 'grass' is first mentioned in the preceding clause to "this" and, as if for emphasis, grass is repeated in the next clause after the underlined word, "this". Even

though the other options were considered fairly powerful distractors, the skillful ESL students were expected to be able to identify Option B as the correct answer.

Validation of Test Items and the Use of Multiple-Choice Format

The technique of multiple-choice questions has, like most language innovations, been criticized for being too unchallenging and much less demanding than the traditional examinations which use mainly the free response questions. Some examiners have criticized the multiple-choice format on the grounds that "the detail and intricacy of the questioning trains skillful question answerers rather than skillful readers" (or users of the language) (Brumfit, 1978).

The multiple-choice technique is among the most difficult to construct but once it has been constructed and standardized the multiple-choice test becomes simple to score and administer. One of its greatest virtues is that the multiple-choice format eliminates teacher subjectivity and it is also capable of accommodating a wide range of items. The multiple-choice test is relatively easier to standardize than most traditional tests. In the case of the pooled structural and reading comprehension items used in this study these test items had occurred in different combinations in previous West African School Certificate and Cambridge School Certificate examinations. And since these two examinations are standardized, the test items selected from them had therefore met both reliability and validity requirements. Each of the test items chosen represented linguistic patterns that had been shown to contribute to the overall

performance on such a language test. The items were ,therefore, psychometrically objective. The items were linguistically meaningful because the correct combination of each question represented a form of English construction that was both plausible and grammatical.

Other Characteristics of Test Items

The overriding factor behind the selection of these structural items was linguistic propriety. The items included in the coverage were as representative as possible of the forms ESL students encounter normally in the school work and within the linguistic environment in which they live. It would have been ideal to make the selections as comprehensive and as exhaustive as frequency counts would suggest. That might have necessitated including such syntactic forms as passives, transformations, ambiguities. But there are usually unavoidable constraints in a language study of this nature. In this particular study the time that was going to be available to the subjects and the specified focus of the study were important guiding factors. In addition, the suggestion by Heaton (1975) was considered most pertinent in this respect,

> Before constructing any test items, the test writer must first determine the actual areas to be covered by the multiple-choice items and the number of items to be included in the test. The test must be long enough to allow for a reliable assessment of the testee's performance and short enough to be practicable. Too long a test is undesirable because of the administration difficulties often created and because of the mental strain and tension which may be caused among the students taking the test. The number of items included in a test will vary according to the level of difficulty, the nature of the areas being tested, and the purpose of the test.

The test items that were administered had been selected from past Cambridge School Certificate and West African School Certificate examinations. The papers from which the test items were pooled together spread over a period of 7 years (1974-80). The test items had therefore not appeared previously in the combination in which they were presented. The lexical items and proper names were modified. The modification of the vocabulary items saved the tests from adding semantic constraints for the subjects that were being examined. Under normal practice in Nigeria, structures and reading comprehension are not tested together. Usually structures and lexis are tested under one paper while reading comprehension and summary writing are tested together. The format of the tests for this study was therefore novel and could help reveal the candidates' response characteristics when taking a test that is supposed to be made up of related sub-skills.

The manner in which corrections were done by the subjects or the pattern in which subjects identified what appeared to be the focus of information were all expected to reveal whether syntactic structures could or could not be considered as being critically related to reading. This means that those subjects who underlined individual words might be regarded as demonstrating their bias for lexical items as carriers

of meaning rather than for syntactic groups.

Testing Procedures

The ESL Nigerian subjects selected for this study were given detailed explanations of the skills being tested. The importance of speed and accuracy were stressed,but subjects were also told that every candidate would be given adequate encouragement to complete the tests. Subjects were advised to use a pencil to record their answers. This method allowed for some changes when the candidate was in doubt. Practors showed in each case that a correct response was to be indicated by making a circle only around the most suitable option. Subjects were advised not to spend more than 20 minutes altogether for the structure questions and the remaining 40 minutes or so on the reading comprehension questions. For the structure section subjects were advised to state what they considered to be the correct English expression and not necessarily what they heard around them. For the reading comprehension section subjects were told to spend about 10 and 5 minutes for reading passage one and two, respectively. For those who could work reasonably fast through all the test items the subjects were expected to have 5 minutes or so for revision. Even those who did not complete the test items within one hour were to be encouraged as far as was practicable to complete the test items. This was because completion time was not one of the variables in this language test.

For assessment purposes, each of the two sections of the test was scored out of 100% in the following manner:

| Test | Number of Questions | Total Possible Score |
|---|---|---|
| 1 | 60 | 100% |
| 2 | 20 | 100% |

This method of calculation was aimed at making for an easier working of the correlation coefficient.

The test items were presented in two parts. Part One was made up of 60 sets of questions on structures. Part Two was made up of two reading comprehension passages. Passage one was accompanied by 14 questions and passage two was accompanied with 6 questions. In section one on syntactic structures, the stem of each question was made clear enough so that attention was not diverted from the grammatical form being tested. The first few questions were on paraphrase and these were meant to act as lead-in for the subjects.

For the reading comprehension questions, the subjects were advised to go over the relevant portion of the comprehension passage whenever it was necessary. Subjects were advised that the necessary re-reading could assist them in re-focusing their minds on the particular question that was being asked. (A full version of the test items administered is attached as Appendix A.)

Data Gathering Process:

The northern part of Nigeria consists of several geo-linguistic groups,four of which have made significant impact on the patterns of language education in the north of Nigeria. The four major geo-linguistic areas could be broken down in the following manner:

Main North: Hausa, Fulani and Kanuri
North West: Nupe, Gwari
Lower North: Yoruba, Igbirra and Igala
Plateau and Middle Belt: Angas, Birom, Tiv and Idoma

Each of these different linguistic groups have peculiar ways in which they exert some influence on the language of ESL Nigerian students. Most of the linguistic influences of these indigenous Nigerian languages have already been discussed in Chapter Two. To insure that these geo-linguistic areas were all covered in this study, it was decided that for the data gathering at least one school would be selected from each of these geo-linguistic areas.

It is believed in Nigeria that staff and student distribution usually favors the urban centers to the detriment of the rural schools. Others sometimes argue that the absence of town-life with its countless distractions is a blessing for the rural schools. Even though these are moot points, the important role played by facts such as the presence of specialists and the availability of classroom T.V., language laboratory and audio-visual gadgets cannot be completely ignored. Attempts were made so that these points could be incorporated into the study without making the task too cumbersome. The range of performance among students in Nigeria, especially in the northern part, could be very wide. So is the range of language abilities that one meets in the different schools.

The selection of subjects was planned in such a way that male and female students had the same 50-50 chance of being included in the final pool of subjects whose papers were to be analyzed. In October 1980, requests were sent to the Education Ministries of eight of the States in

the northern part of Nigeria. Favorable responses were received from all the eight state Education Ministries. After some further correspondence with the various ministries, six schools were selected for the purpose of data gathering. The principals and the English tutors of the respective schools were notified of the nature of the study and the tests to be administered. The criteria for the final section were these:

1. Each school had 120 students in each of their 3rd and 5th year grades, and at least 5 years experience in taking the West African School Certificate examination.
2. Two female schools - one urban and one rural.
3. Two male schools - one urban and one rural.
4. Two co-educational schools - one urban and one rural.

After consultations with four ESL specialists, two psychologists, two statisticians, two linguists, two examiners, two curriculum designers and two reading specialists, it was decided that for each school in each location all the 3rd and 5th year students were to take the tests. This made it possible to capture the interest and involvement of all the required subjects in the tests and also attracted the very best of the covered sample in the area of syntactic structures. After the tests had been administered, the papers of all the 3rd and 5th year students were marked. The top 15 subjects in syntactic structures in every 3rd and 5th year groups had their papers separated from the others. The parallel scores for these top 15 students were tabulated for the area of reading comprehension. The pairs of scores for each of the 15 subjects were compiled for the purposes of correlational analyses. The table below summarizes the sample that was covered:

Table 1

Schools Covered by the Sample

| Secondary School | Year | Male | Female | Location Urban | Location Rural | Totals |
|---|---|---|---|---|---|---|
| Ilorin, Queen Elizabeth | 3 | | 15 | 15 | | 15 |
| | 5 | | 15 | 15 | | 15 |
| Jos, Blessed Murumba's | 3 | 15 | | 15 | | 15 |
| | 5 | 15 | | 15 | | 15 |
| Kano, Community Commercial | 3 | 10 | 5 | 15 | | 15 |
| | 5 | 10 | 5 | 15 | | 15 |
| Gindiri, Boys' and Girls' high school | 3 | 7 | 8 | | 15 | 15 |
| | 5 | 8 | 7 | | 15 | 15 |
| Kontagora, Govt. College | 3 | 15 | | | 15 | 15 |
| | 5 | 15 | | | 15 | 15 |
| Malumfashi, Govt. Girls' Sec. School | 3 | | 15 | | 15 | 15 |
| | 5 | | 15 | | 15 | 15 |
| Grand Totals: | | 95 | 85 | 90 | 90 | 180 |

Data Analyses

Pilot Test

The correlation coefficient was used in this study mainly because "this is a single figure which expresses how much two series of numerical observations have in common," (Elisabeth Ingram 1977). Correlation is particularly useful here since subjects' scores came out in pairs. Correlation in this instance was used to assess reliability and validity. It was directed at assessing the degree of correspondence between the sub-tests that were administered to the subjects in the study. Comparison of all the separate correlations could also be made.

A reading-related experiment was reported by Ruth Clark (1977). A group of 14 Ugandan students and a group of 40 Scottish children were asked to read a passage. Later, the two groups were tested both for general comprehension and for recall of the precise vocabulary that had appeared in the text. After compiling each subject's pairs of score one graph was constructed and the medians of the four sets of scores (for the two separate groups) were plotted. From the graph it was clear that the Scottish students performed better as a group on the comprehension test while the Ugandan students did better as a group on the vocabulary test. By its very nature the graph represents a bold method through which resemblance or difference between groups could be shown.

In the study the comparison focused more on the interrelationship between the sub-skills possessed by the different subjects. The correlation coefficient was therefore considered more useful than the graph representation. The limitations of the correlation coefficient must, however, be always borne in mind. These limitations were aptly pointed out by Fox (1969),

> Both percentile and moment system correlations are measures only of the stability of the ordering of the two sets of data. They do not reflect the position of the scores on any absolute scale of values. Thus, if we were to administer a test to a group of children at the beginning of a unit and find a perfect correlation of +1.00, this would tell us only that every child remained in the same relative position on the two administrations. It would tell us nothing about the two distributions of scores. Everyone could have changed 10 points or 100 points or different numbers of points. As long as their relative position remained unchanged, the correlation would be perfect.

A primary aim of the study was to establish whether an exceptional or very good student in syntactic structure would retain a consistently high relative position in a separate test on reading comprehension.

To ensure that the tests had concurrent validity, care was taken to use test items from a standardized examination. In addition, the instrument that was used had formed the basis of a pilot test conducted in Madison using Nigerian subjects. The main aim of the pilot test was to provide a final chance of cross-checking the difficulty level of the different sets of questions on both syntactic structures and reading comprehension. The results and their correlation are shown below:

| Subjects Number | Test 1 | Test 2 |
|---|---|---|
| 1 | 48 | 85 |
| 2 | 52 | 80 |
| 3 | 53 | 30 |
| 4 | 54 | 40 |
| 5 | 63 | 80 |
| 6 | 67 | 60 |
| 7 | 70 | 65 |
| 8 | 76 | 70 |

$r = 0.09$ or 1%

This outcome showed that there was very little or no correlation between the two sets of scores. Test 1 was on structures, and performing relatively well in that area did not automatically mean that subjects would perform also relatively well on Test 2 which was on reading.

The pilot test result showed clearly that the hypothesis that those who perform well in structures will perform equally well in reading was rejected.

The findings from this pilot test must be taken with caution because of the following points:

1) The linguistic situation in Madison is almost ideal for maximum language growth. Students, who formed the subjects of the pilot test, have abundant and rich amount of exposure. The facilities at students' disposal were also numerous. It was therefore to be expected that students could have selected from several routes and developed their language skills along those lines. That is, those who worked hard in reading did well in it.

2) Most students who come to Madison accompany parents who themselves have had exceptional attainments in English. The effects of such unique skills on the subjects could not be ruled out.

3) Similarities in both the backgrounds as well as the learning materials in Madison could mean that the gap between the Nigerian students out here is likely to be very narrow. All these were mainly speculative.

The ESL situation in Nigeria was expected to reflect something different from that conveyed through the pilot study. Efforts had therefore been made to widen the sample in the Nigerian situation so that the most informative findings could be tapped.

The most important aims of this study were two-fold: 1) to establish whether there was a high positive correlation in the performances of ESL Nigerian subjects with syntactic structures and reading comprehension, and 2) to trace the degree to which specific location of schools aided or impeded success in the two language areas of structures and reading. The test items discussed in this chapter were expected to provide adequate information to warrant some specific statements about the ESL situation in Nigeria.

It was also hoped that findings from the sample would shed enough light on what constituted the main patterns of linguistic

strengths and weaknesses in ESL students.

After consultations with two statisticians and a specialist in tests and measurement it was decided that for the analysis of correlation coefficient in this study any outcome that fell between 0.40 and 0.70 would be accepted as being statistically significant. This is mainly because such a result will indicate a substantial degree of relationship between the items compared. Connolly and Sluckin (1957) have provided "a rough but useful guide to the degree of relationship indicated by the size of the coefficients":

0.90-1.00 - very high correlation; very strong relationship
0.70-0.90 - high correlation; marked relationship
0.40-0.70 - moderate correlation; substantial relationship
0.20-0.40 - low correlation; a definite relationship but a small one
0.20 and less - slight correlation; relationship so small as to be negligible.

Chapter Four looks at the different results of the tests administered and discusses these findings side by side with the hypotheses that had been set up at the beginning of the study.

# CHAPTER FOUR

## RESULTS AND DISCUSSION

This chapter focused upon the following two aspects of the study: the results of the tests administered and the discussion of these results. The following format will be used in this chapter:

1. Summary of the study
2. Hypotheses that were tested.
3. Presentation of each hypothesis and its discussion.
4. Review of the raw data and general observations.

### Summary of the Study

One-hundred eighty 3rd and 5th year secondary school ESL Nigerian students had formed the subjects in this language study. The main aim of the study was to establish whether there were high positive correlations in subjects' performances with syntactic structures and reading comprehension. The study was further aimed at showing whether the performances would differ according to the number of years the subjects had spent learning English so that the 5th year subjects would always perform better than the 3rd year subjects in the areas of syntax and reading. The study was also designed to establish if the location of a school had any significant linguistic consequences on performance. To this end the schools located in urban centers were compared with the schools located in the rural areas.

Three main hypotheses had been set up at the beginning of this study. In the following section the hypotheses will be taken one after the other in the following manner:

Hypothesis 1: There will be high positive correlations between good performances with syntactic structures and reading comprehension.

To assess whether the above hypothesis would be accepted or rejected, the following steps were taken in this sequence:

- The scores of the best 15 subjects in syntactic structures were recorded for each of the two classes involved and for each location that had been selected.
- The matching scores for these same 15 subjects in the reading comprehension area were recorded so that each of the 15 subjects had a pair of scores.
- The correlations between the two sets of scores were computed for the 12 groups of subjects in all the 6 different locations.

The results are summarized in the table below:

Table 2: Correlations Between Performances with Syntactic Structures and Reading Comprehension in the Six Schools

| Secondary Schools | Grades | Location | Tests Compared | Correlation | Significant/ Non-Significant |
|---|---|---|---|---|---|
| Ilorin, Queen Elizabeth | 3 | U | 1 & 2 | - 0.0015 | NS |
| | 5 | | | 0.033 | NS |
| Jos,Blessed Murumba's | 3 | U | 1 & 2 | 0.11 | NS |
| | 5 | | | - 0.0035 | NS |
| Kano,Community Commercial | 3 | U | 1 & 2 | 0.045 | NS |
| | 5 | | | 0.15 | NS |
| Gindiri, Boys' & Girls' High | 3 | R | 1 & 2 | 0.042 | NS |
| | 5 | | | 0.072 | NS |
| Kontagora, Govt. College | 3 | R | 1 & 2 | 0.83 | S* |
| | 5 | | | 0.698 | S |
| Malumfashi Govt. Girls' | 3 | R | 1 & 2 | 0.729 | S |
| | 5 | | | 0.80 | S |

*Level of Significance = 0.40-0.70 and above.

Hypothesis I was rejected by the results. The prediction that there will be high positive correlations between good performances with syntactic structure and reading comprehension was rejected in respect of the following schools: Ilorin, Jos, Kano and Gindiri. The hypothesis was, however, accepted in respect of Kontagora and Malumfashi schools.

Hypothesis 2: There will be a significant difference between the performances of the 3rd year ESL Nigerian subjects, and the 5th year ESL Nigerian subjects in syntactic structures and reading comprehension.

This hypothesis involved comparison of the test scores across grades (years). The comparison of the scores across grades was done for each school through the use of the t-test. The following formula was employed:

$$t = \frac{X5 - X3}{\frac{S^2 5}{n5} + \frac{S^2 3}{n3}}$$

The table t-value for 28 degrees of freedom at 5% significance level is 2.048. The table below (p. 76) summarizes the results for the schools.

From the results shown on Table 3, Hypothesis 2 that there will be a significant difference between performances of 3rd and 5th year subjects was accepted in respect of these schools: Jos, Ilorin, and Gindiri. The hypothesis was, however, rejected in respect of Kontagora, Malumfashi, and Kano schools.

Table 3: T-Values of the Tests with Syntactic Structures and Reading Comprehension for Years 5 and 3 Subjects in the Six Schools.

| School/ Location | Test and Grades Compared | Means (X) - | Variances | T-Values | Significant/ Non-Significant |
|---|---|---|---|---|---|
| Jos (U) | $T_1$ 5 & 3 | 84.13<br>62.0 | 105.45<br>113.73 | 5.789 | S* |
| | $T_2$ 5 & 3 | 85.67<br>56.33 | 62.89<br>91.55 | 9.144 | S |
| Kano (U) | $T_1$ 5 & 3 | 54.93<br>47.60 | 379.11<br>139.04 | 1.247 | NS |
| | $T_2$ 5 & 3 | 50.0<br>48.67 | 253.33<br>208.22 | 0.240 | NS |
| Ilorin (U) | $T_1$ 5 & 3 | 84.87<br>61.40 | 51.72<br>117.92 | 6.978 | S |
| | $T_2$ 5 & 3 | 84.00<br>58.00 | 84.00<br>152.67 | 6.54 | S |
| Gindiri (R) | $T_1$ 5 & 3 | 80.73<br>58.73 | 111.0<br>149.53 | 5.279 | S |
| | $T_2$ 5 & 3 | 84.<br>72.67 | 77.33<br>202.89 | 2.621 | S |
| Kontagora (R) | $T_1$ 5 & 3 | 58.6<br>45.4 | 257.84<br>184.91 | 2.43 | S |
| | $T_2$ 5 & 3 | 56.0<br>42.33 | 344<br>326.22 | 2.045 | NS |
| Malumfashi (R) | $T_1$ 5 & 3 | 58<br>54.93 | 312<br>194.40 | 0.53 | NS |
| | $T_2$ 5 & 3 | 66.67<br>51.67 | 255.56<br>205.56 | 2.705 | S |

*Level of Significance = 2.048.

Hypothesis 3: Subjects in schools located in urban centers will do better than their counterparts in rural schools in the areas of syntactic structures and reading comprehension.

The method used to test this hypothesis was comparative. The two highest levels of performance were identified and all the schools covered by the sample were compared along these two levels of performance. The levels of performance were the distinction or "A" level and the very good or "B" level. These two levels were represented by 80% and above for performance at distinction or excellent level and 60% or above for performance at very good level. The table below represents the results regarding this hypothesis.

Table 4: Percentages of Subjects (By Year) Achieving Above 80% (A) and 60% (B) Levels with Syntactic Structures and Reading Comprehension in the Six Schools

| School/ Location | Year | Test 1 S'S > 80% | Test 2 S's > 80% | $T_1$ S's > 60% | $T_2$ S's > 60% |
|---|---|---|---|---|---|
| Ilorin (U) | 3 | 0% | 6.6% | 66.6% | 46.6% |
| | 5 | 80% | 66.6% | 100% | 100% |
| Jos (U) | 3 | 6.6% | 0% | 66.6% | 46.6% |
| | 5 | 60% | 80% | 100% | 100% |
| Kano (U) | 3 | 0% | 0% | 20% | 40% |
| | 5 | 13.3% | 0% | 46.6% | 33.3% |
| Gindiri (R) | 3 | 13.3% | 33.3% | 53.3% | 86.6% |
| | 5 | 60% | 73.3% | 100% | 100% |
| Kontagora (R) | 3 | 0% | 0% | 20% | 26.6% |
| | 5 | 13.3% | 13.3% | 53.3% | 53.3% |
| Malumfashi (R) | 3 | 0% | 0% | 40% | 46.6% |
| | 5 | 6.6% | 33.3% | 53.3% | 73.3% |

The percentages of the excellent achievers across the six different schools reveal that the hypothesis that urban school subjects will do better than their rural counterparts was rejected. Two urban schools (Ilorin and Jos) did better than two rural schools (Kontagora and Malumfashi). One rural school (Gindiri) did just as impressively as the two high-achieving urban schools. In addition, one urban school (Kano) performed as poorly as the two weak rural schools (Kontagora and Malumfashi). The hypothesis that urban schools will do better than their rural counterparts in syntactic structures and reading comprehension could not be accepted.

However, the hypothesis may not be rejected in toto. Of the three high-achieving schools, two were located in urban centers. Of the three schools with low performance two were situated in rural locations. The above outcomes tend to suggest that the incidence of high performance in syntactic structures and reading was higher in the urban schools than in the rural schools. The chances of poor performance appeared to be greater in the rural schools than in their urban counterparts. These speculations do not contradict the earlier statement that hypothesis 3 was not accepted - that is, urban subjects in Nigerian secondary schools will not necessarily do better than their rural counterparts with syntactic structures and reading comprehension.

The following schools had interesting results and have therefore been discussed individually.

Table 5: Correlations Between Performances with Syntactic Structures and Reading Comprehension for Years 5 and 3 in Gindiri School.

| School: | Gindiri (R) | | |
|---|---|---|---|
| Grade: | SS3 | Grade: | SS5 |
| $T_1$ | $T_2$ | $T_1$ | $T_2$ |
| 85 | 75 | 95 | 100 |
| 80 | 70 | 95 | 80 |
| 67 | 95 | 90 | 85 |
| 67 | 45 | 90 | 80 |
| 65 | 80 | 90 | 75 |
| 60 | 80 | 85 | 95 |
| 60 | 70 | 84 | 75 |
| 55 | 40 | 80 | 90 |
| 50 | 80 | 76 | 95 |
| 50 | 70 | 76 | 80 |
| 50 | 70 | 70 | 95 |
| 47 | 75 | 70 | 85 |
| 45 | 70 | 65 | 80 |
| 40 | 75 | 60 | 75 |
| r = 0.042 (positive) | | r = 0.072 (positive) | |

Gindiri Boys' and Girls' High School

The subjects performed uniformly well across the syntactic structures except where the initial clause of the sentence had been deleted. In the reading area the only problem noticed was the general tendency in the subjects to link a pronoun first with the nearest nominal antecedent. This was similar to the observation made by C. Chomsky (1969) who had described it as the "minimal distance principle."

The results in this school were striking in several ways. Gindiri, as a rural school, was expected to perform poorly. Gindiri school subjects were also expected to show traits of language forms arising from $L_1$ interference. Contrary to these expectations, Gindiri school was one of the exceptionally high-achieving ones. The possible factors responsible are discussed later in this chapter.

Table 6: Correlations Between Performances with Syntactic Structures and Reading Comprehension for Years 5 and 3 in Malumfashi School.

| School: | Malumfashi (R) | | |
|---|---|---|---|
| Grade: | SS3 | Grade: | SS5 |
| $T_1$ | $T_2$ | $T_1$ | $T_2$ |
| 75 | 60 | 90 | 85 |
| 75 | 60 | 75 | 85 |
| 75 | 60 | 75 | 70 |
| 70 | 65 | 73 | 80 |
| 60 | 55 | 70 | 75 |
| 60 | 55 | 70 | 70 |
| 57 | 70 | 65 | 80 |
| 55 | 65 | 60 | 60 |
| 50 | 65 | 55 | 70 |
| 47 | 45 | 50 | 65 |
| 47 | 45 | 48 | 85 |
| 45 | 30 | 43 | 55 |
| 40 | 50 | 38 | 35 |
| 38 | 25 | 33 | 45 |
| 30 | 25 | 25 | 40 |
| *r = 0.729 (positive)* | | *r = 0.80 (positive)* | |

Malumfashi Government Girls Secondary School

The subjects who performed well showed a good command of the complex verb form, word order and pronoun/referent identification.

These skills were similarly shown by those skillful in syntactic structures when it came to the area of reading comprehension. The exceptionally good subjects did well in inferential and literal comprehension and were able to identify antecedents of pronouns most of the time.

For these subjects a good grasp of syntax seemed to have accelerated good performance in reading. This was more so with the 5th year subjects. The outcome seemed to agree with Fagan's (1971) findings that syntactic effect is crucial for the overall perception of the sentence.

Table 7: Correlations Between Performances with Syntactic Structures and Reading Comprehension for Years 5 and 3 in Kano School.

| School: | Kanc (U) | | |
|---|---|---|---|
| Grade: | SS3 | Grade: | SS5 |
| $T_1$ | $T_2$ | $T_1$ | $T_2$ |
| 65 | 55 | 85 | 55 |
| 65 | 35 | 80 | 50 |
| 60 | 65 | 78 | 45 |
| 55 | 65 | 74 | 60 |
| 55 | 65 | 74 | 40 |
| 55 | 45 | 70 | 65 |
| 50 | 60 | 60 | 75 |
| 50 | 35 | 50 | 75 |
| 50 | 30 | 40 | 55 |
| 40 | 30 | 40 | 30 |
| 40 | 25 | 40 | 30 |
| 38 | 60 | 40 | 25 |
| 33 | 55 | 33 | 30 |
| 33 | 40 | 30 | 65 |
| 25 | 66 | 30 | 50 |
| r = 0.045 (positive) | | r = 0.15 (positive) | |

Kano Community Commercial Secondary School

The performances of the Kano subjects was probably the least satisfactory in most respects. Many subjects concentrated on only one section of the tests. Ample time was given to these subjects to complete all the tests but the subjects seemed to have decided long before the tests the areas of English in which they were strong.

Errors in syntactic structure spread across the paraphrase of content through the alternations of certain syntactic forms like the NP, VP, conjunctions and conditionals, question tags,the complex verb phrase and the miscellaneous structures. Equally revealing was the fact that inferential reading and the location of information through specific clause units constituted the great reading comprehension problems. The language difficulties of the Kano school subjects seemed to have been global in outlook. The subjects were relatively skillful in selecting referents to pronouns and in identifying the correct word order of word groups.

Review of the Raw Data and Some Language Characteristics of the ESL Nigerian Subjects:

In addition to testing the three hypotheses discussed above, the study attempted to answer the following related questions:

1. Was there some strong evidence of a culturally-determined selection of syntactic structures?
2. Was there a significant difference between male and female subjects?
3. Was there a hierarchy of difficulty regarding syntactic structures among ESL Nigerian subjects?

4. Was there a set of reading traits responsible for the ESL Nigerian students' poor reading performance?

5. Is there a reading theory that could represent the subjects' patterns of performance?

Culturally-Determined Selection of Syntactic Structure(s)

Only one syntactic structure was considered to have been selected on the grounds of cultural interference and this was made up of the tag questions, as in:

[48]*They said Dr. Omojuwa is coming, isn't it?

[54]*Isaac Rammopo has published his eagerly awaited book on poetry, isn't it?

[59]*You think I'm being stubborn, isn't it?

Over 80% of the subjects in Kano and all the rural schools (except Gindiri) selected the above deviant forms. The invariant "isn't it" form in virtually all Nigerian languages was considered to have motivated the above selections.

Difference Between Male and Female Subjects

The best performances in the two tests were recorded by one male school - Jos, one female school - Ilorin and one co-educational school - Gindiri. Essentially this would tend to suggest that there was little distinction between subjects on the basis of sex. Gindiri and Kano were the two co-educational schools involved in taking the tests. They were therefore ideal sources for further establishing whether any significant differences existed between male and female performances.

In Gindiri the best 30 subjects that represented students from both 3rd and 5th years consisted of 15 males and 15 females. This showed there was practically no difference according to sex.

In Kano the male out-numbered the female by a ratio of 2:1. The number of 240 students from which the subjects were selected was made up of 160 male and 80 female students. The results (p. 68) showed that the top 30 performers consisted of 20 male and 10 female. This meant that the distribution of performance was proportionate to the actual male/female representation in the school population. These facts all confirm that there was no difference between male and female subjects.

Hierarchy of Syntactic Difficulty

Test one concentrated on four major syntactic patterns. Responses showed that subjects were particularly suspect in handling modal auxiliaries and the paraphrase of content through alternations of NP, VP, conditionals and conjunctions. Examples of modal auxiliaries that created some problem:

[26] But for the timely arrival of the police, the suspect would have been lynched by the angry crowd.

[27] Had we had a helicopter, we would have saved the lives of the school children.

[28] He should have written that letter, but he had no time.

These were wrongly answered by over 75% of the subjects in Kano and all the rural schools (except Gindiri).

Examples of paraphrase of content through alternations of NP, VP, conditionals and conjunctions:

[22] Headmaster: Come and pay your fees tomorrow.
Emeka: I might just as well pay them today...

[44] The principal promised his students to take the exams...

Here subjects tended to pay too much attention to the surface forms so that as high as 75% of the subjects in Kano and all the rural schools (except Gindiri) failed the above questions.

From the results, the two forms of structure above were definitely found more difficult than the other two dealing with relative pronouns and intra-sentence linkers and adverbials.

Set of Reading Traits Among ESL Nigerian Subjects

The ESL Nigerian subjects showed a set of reading qualities some of which were general and others specific.

General Reading Characteristics: In five of the six schools, the investigator's university colleague was involved in personally co-supervising the administration of the tests. In all these cases it was observed that only 50% of the subjects completed the test items inside one hour. In all cases the subjects were given more time for completion. The slow reading pace was considered a serious handicap since the 15 subjects drawn from each year represented the top 12.5% of the overall student population in language skills.

There was the general tendency in the subjects to use word underlining as an aid to the identification of focus of meaning.

Specific Reading Traits: The manner in which some of the reading questions were answered showed that many subjects tried to comprehend the passages in isolated units before attempting an overall

comprehension of the passages. There were, for example, many instances of an imperfect score for pairs of questions that were closely interrelated. In the pairs below one would have thought that knowing one particular response would have led to knowing the second within the pairs, but that was usually not the case.

[9] From the passage we recognize that: D The crop yields have been consistently low.

[10] In what way does the grasshopper contribute to shortage of foodstuff in this country? B They eat up the young plants of our food crops.

[17] The tense mood in the middle of the conversation showed that: D Jingala disliked his sons's intentions.

[18] Gregory's father believed that: A One's son belonged to one.

Over 75% of the subjects in Kano and all the rural schools (except Gindiri) missed one from each of the above pairs.

In addition to the above points most of the subjects in the low-achieving schools underlined just those words that looked unfamiliar and not the words or word groups that were considered to be potentially significant in contributing to passage comprehension. This last point indicated that these subjects were looking at separate units ahead of and more intensively than any other elements of the passage.

The Reading Theory Supported by the Results

Of the various theories of reading recently propounded by researchers, three have been greatly influenced by findings from linguistics and psychology. These three include the bottom up, top-down and hypothosis test models. By their performances, the ESL Nigerian subjects seemed to have been closest to the hypothesis test approach mainly

on the basis of its interactive emphasis. For the subjects that scored highest both lexical and semantic clues seemed to have interacted simultaneously in the responses such subjects selected.

A significant quality of the reading behavior among exceptionally proficient ESL Nigerian students was the confident interpretation they demonstrated when analyzing a reading text. This interpretation confidence was shown in at least two critically interdependent ways: 1) the exceptionally good ESL Nigerian students usually perceived the general theme of a reading material no matter how many competing subthemes there were in the text, and 2) the exceptionally good ESL Nigerian students were generally able to identify the important subsidiary points in a reading passage, no matter the language in which such extensions were couched. Through their ability to handle successfully the syntactic elements of English, the exceptionally good ESL students usually employed the structural signals in the sentences to establish the communicative force of each unit.

The following illustrations are based on the subjects' responses to the reading comprehension questions.

(3) Why has the killing of the birds not provided the expected results? (Appendix A, Passage A)

A. Only very few birds could be destroyed in a year.
B. The cost is rather prohibitive.
C. The birds breed young ones to replace those killed.
D. The killing is a cruel act.
E. The result has been counteracted by the menace of the cattle.

The last sentence of paragraph two provides evidence for the correct answer to the above question. This last sentence states that:

"This is done without any reduction in the bird population as natural increase keeps pace with the loss." To arrive fully at the answer the reader must first of all identify the pronominal item "this" and its antecedent. In this case "this" refers back to a whole sentence: "In this way it is estimated we kill some fifty million birds a year and...." The next important syntactic unit is this: "without any reduction in the bird population." The information here stresses that despite the high death figure of the quelea birds, the bird population remains about the same. The very last clause of this last sentence explains the reason behind this state of equilibrium. "...as natural increase keeps pace with the loss" suggests that young ones are produced at an equal pace to replace the huge number of birds killed by hot blast. All these pieces of information were identified by the excellent readers. The differences between the excellent and weak readers surfaced in responses to other questions like the ones discussed below:

(8) According to paragraph four, what "are in fact sold locally?"

A. cattle manure
B. cattle
C. quelea birds
D. crops
E. birds' droppings

The last sentence of paragraph four contains the information needed for answering the above question. Both birds' droppings and cattle manure are mentioned in the sentence. The excellent readers were able to confirm that the plural form of the question and the content of the said sentence suggest birds' droppings as the answer. The plural form of birds' droppings selects the plural verbs of <u>are</u> in

"are readily available"; are in "are already used far more fully by farmers"...and are in "are in fact sold locally." The excellent readers utilized these cues to select the correct option E - birds' droppings.

The weak readers, on the other hand, were confused by the presence of cattle manure. Many of these weak readers probably reasoned that cattle is a noun of the pluralia tantum nature and therefore cattle manure should also be plural. This was possibly why most weak readers selected the wrong option of A - cattle manure. The choice of this distractor as the answer was further evidence of the weak readers' inaccurate response to syntactic cues as well as their concession to irrelevance.

In addition to the two points above, the exceptionally good ESL students depart radically from the weak ESL students with regard to the handling of irrelevant features. With the exceptionally good ESL students irrelevant points, especially in the reading comprehension passages, were usually treated with total disregard. This was not so with the weak ESL readers. These weak ESL students usually got entangled with the distractors in the reading tests. Consequently even though the questions had been framed in the objective format, the poor ESL students still found room to indicate that this or that other point was worth considering too. This they did through three principal ways: 1) inaccurate responses to syntactic and semantic cues. The weak readers paid attention to the wrong items while ignoring the important features. 2) The weak ESL students generally inserted conspicuous question marks against alternatives which they considered

were in stiff competition with the answers they had selected. This in itself relayed a high degree of uncertainty in the option marked as the answer, and 3) Often the weak ESL students scribbled qualifications against their selected responses; these amounted to excuses or unrequired explanations.

Some reading comprehension questions typically handled badly by the weak readers included the following:

(11) Why did some farmers in Kano State have to plant millet crops seven times in 1975? (Appendix A, Passage A)

A. There was a prolonged period of rainfall.
B. They took advantage of the absence of insect pests that year.
C. The crops they planted were eaten up on each occasion.
D. They particularly wanted a good yield of millet that year.
E. They probably had a way of supplying water to their farms when there was no rain.

The selction of Option D by many of the weak readers betrayed their inability to recognize syntactic units and the specific implications they carried. In tackling this question it was important to remember that: seven plantings $\neq$ seven crops. Most of the weak readers probably assumed that "seven plantings" was synonymous with "seven plants." The suggestion that the planting was done on seven different occasions was therefore lost on such weak readers. The second clausal unit "as each set of successive young plants was destroyed by grasshoppers" probably failed to convey the intended meaning to the poor readers. In addition, the poor readers failed to direct their attention to those points that could be verified in the text. Rather such weak readers fell back unnecessarily on their own general knowledge and attempted to use such irrelevant information in

answering question (11). This was probably another reason for the selection of Option D: They particularly wanted a good yield of millet that year.

Further evidence that weak readers were unduly preoccupied with surrounding distractions were discerned through responses like the one presented below:

(19) The chief's statements revealed that he:(Appendix A, Passage B)

A. didn't regard anyone with respect.
B. hadn't patience to listen to others.
C. found it difficult to settle disputes.
D. considered the village one big family.

Most of the poor readers who selected options A and C as the answer underlined conspicuously the following authorial comments between the chief's actual words: ...the chief said in his nonchalant manner. Again he adjusted his tie after loosening the knot which seemed to make his breathing hard and heavy. This underlining showed that such poor readers could not use the appropriate syntactic and semantic cues but instead relied too heavily on "irrelevant asides" for their answers to the question. In this particular question, the excellent readers could see that the chief's selection of key expressions like "my village", "your own people" and "my child" was suggestive of community spirit or feeling. Such word groups provided both syntactic and semantic cues to support the following as the right answer:option D (he) considered the village one big family.

It would appear that in certain instances many weak ESL students demonstrated some intrusion of irrelevance that betrayed the presence of linguistic interference from the $L_1$. This, in some ways, would be

conjectural. The little evidence for direct translation into the student's $L_1$ occurred while such students dealt with structures. In the reading tests the weak ESL students' greatest undoing was instrumented by inaccurate responses to syntactic and semantic cues and too much concession to irrelevance. The response patterns displayed by both the exceptionally good and weak ESL Nigerian students suggest the possibility of what may be called the paradox of structural signals. A reading model peculiar to the ESL situation could therefore be conceived. The skillful language users through their excellent responses to the language signals are able to grasp the writer's main message as well as pinpoint the issues that might be of secondary but, nevertheless, contributory significance. In this respect, structural signals help obviate possible obstacles to thematic interpretation.

Paradoxically, the same syntactic signals generally contributed greatly towards the weak ESL students' poor interpretation. With such poor performers the structural signals and the lexical items, especially the unfamiliar ones, easily got blurred. Doubts invaded the minds of the poor ESL students as to which word groups accurately captured the essence of a text or sentence. This, more than anything else, was why confusion frequently arose as to which options constituted the most viable in the multiple choice questions. Typically the poor ESL student wound up being carried away by some flashy lexical item or syntactic construction that had been inserted purely for their distraction value. The diagram below is an approximate representation of the paradox of syntactic signals in the ESL reading process.

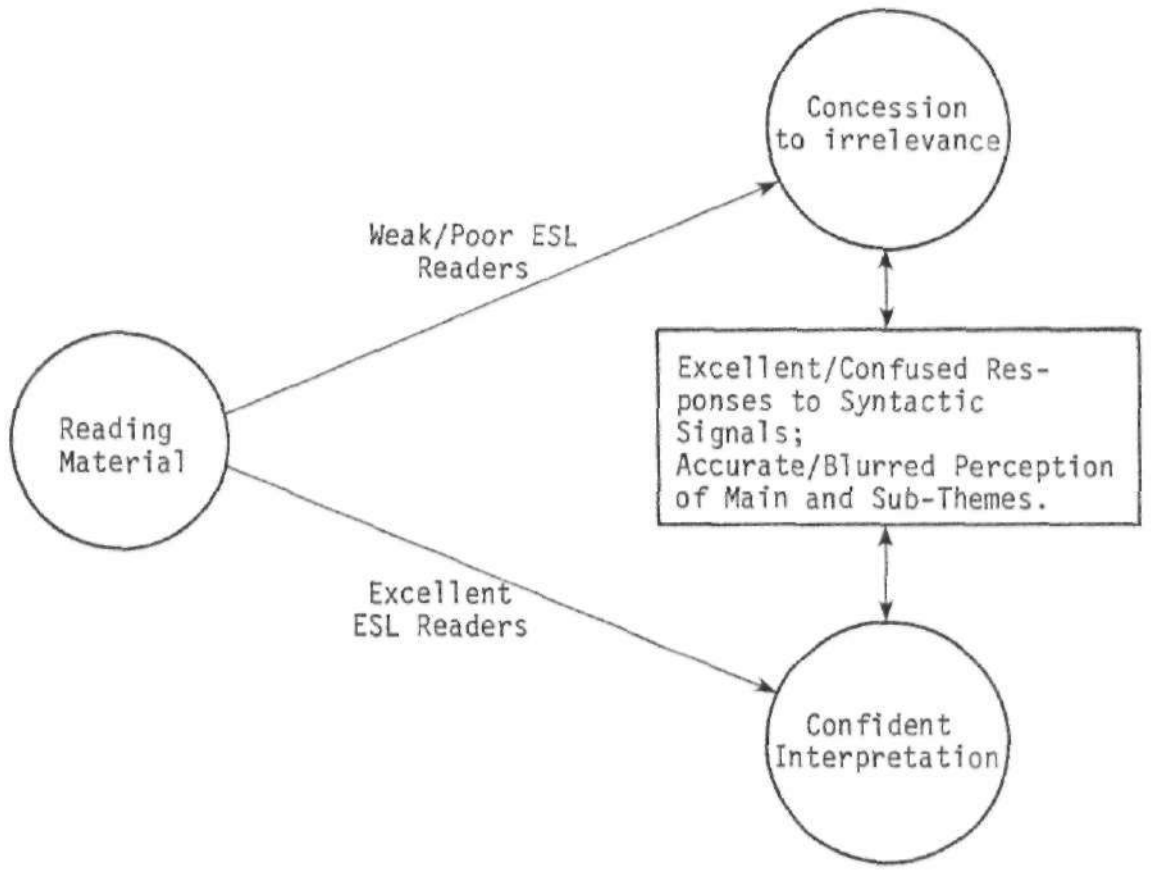



Figure 2: Representation of the ESL Reading Process.

General Discussion

In most ESL situations there is usually a limited range of syntactic forms available to students and, in some cases, their teachers. In this study of the Nigerian ESL situation, the complex verb phrase, question tags and inferential reading constituted major language problems, especially for the typical rural secondary school subjects. Lexical variation constituted the most direct method of changing even structural meaning. In the case of the Nigerian subjects it can therefore be stated that the typical rural students operate normally within the narrow limitations of a few common structures. The questions based on the complex verb phrase included questions 1, 9, 11, 12, 14 and 44. The above six questions taxed all the rural subjects except those in Gindiri school beyond their linguistic resources.

Modality constituted another source of difficulty for most rural subjects. Consequently, modals used for politeness were misinterpreted at both sentence and textual levels. Questions 20, 21, 22 and 23 in the structure test and 20 in the reading comprehension test were confused on account of poor knowledge of modals or modal auxiliaries.

The question tags have already been described as constituting a common source of difficulty to the Nigerian subjects particularly those in the typical rural schools. Most subjects tended to select "Isn't it?" as the appropriate answer to any statement completed with a tag question. This seemed to have been conditioned by the equivalent syntactic form in most Nigerian languages. Interestingly, the questions featuring other tag forms besides "Isn't it" were in

general correctly answered. This shows that the form "Isn't it?" has become so internalized that it receives spontaneous endorsement whenever it has the chance to surface.

Overall, the performance of the Nigerian subjects in reading comprehension was poorest in inferential comprehension and the identification of antecedents to specific pronouns. The weaknesses suggested by these areas might go back to the weak background with which most of the students, especially those in the typical rural school, enter into the reading process.

Important differences between urban and rural schools: In most urban schools in Nigeria the incoming students have had relatively abundant and rich amount of language exposure. Nursery schools have, since the early sixties, begun to proliferate in Nigeria. Such pre-secondary school facilities are widespread usually around the catchment area of the urban secondary schools. Several of the urban secondary schools' students would have at least some broad idea of what is involved in reading. Most of them would have heard of what is correct or acceptable English but being able to produce forms reaching that level is another thing altogether.

Urban secondary schools have public libraries within their vicinity and because most of the students' parents or guardians are usually employed civil servants, the students are under severe pressure to do well.

Generally the students who enter the urban secondary schools might be from different linguistic backgrounds but would nevertheless

have had similarities in the language avenues open to them. The television, the radio, the newspaper and even the city theatre all form openings through which the students of urban secondary schools would have had some initial and meaningful contacts.

The rural secondary schools: Most of the advantages mentioned above may only be fully explored by some urban secondary schools. But what has the exceptional or resourceful rural secondary school, like Gindiri, to offer? Some schools start by making the library the hub of all school's activities. Interviews during the study revealed that Gindiri was one such school. This happens to be a very large co-educational secondary school established by American missionaries. Class libraries have been established as complements to the school library. Organizations like the World Affairs Club, Historical Association, Geographical Society, and the Bible Study Group all have their mini libraries.

Because of the vibrant language-related activities the school in Gindiri almost lives like a self-sufficient island. The students and teachers have been able to, as it were, listen to themselves. They have, from morning till night, read stories, listened to the radio and held reading and discussion sessions.

The extent to which this total involvement in reading strategy has worked was borne out in the very close margin between the mean scores of the 5th and 3rd year subjects in the Gindiri school. This positive trend was not replicated in any other school.

As these students read and get exposed to different forms of materials and literature so do their overall and specific skillsin English improve in both item selections and level of sophistication. Consequently the students' grasp of the syntactic forms of English would increase as a matter of course. This is because the two dimensions of language have a symbiotic relationship.

When such students are called upon to read they employ their language skills in an integrated manner. This gives credence to the holistic view of reading proposed by Shuy (1981). Shuy presented a schematic representation of how the language learner calls on the three facets of language -- decoding, meaning and function. Shuy has stressed that,

> Such a model suggests that different language accesses to reading are not discrete stages but that they operate simultaneously and in different relationships to each other at different stages of development. The reader may focus on one access more heavily at one stage of learning than at another and the decoding focus tends to decrease and meaning and functional focuses increase, giving support to the assertion that early skills are learned in order to become so automatic that they are not conscious to their users (p. 108).

Pedagogical Implications

1) Certain syntactic forms in English are diametrically opposed to some deeply-ingrained structural forms in the students' mother tongue. These English structural forms exert greater influence on students in rural areas where the grip of the culture is firmer. Therefore in most ESL situations efforts should be made to carry out ongoing typology of the structural forms. This could take the form

of a contrastive study and its eventual advantage will be that of providing the teachers and the students with highly informative guidelines.

2) The limitless range of discourse selections in the urban locations has multiplied the speech and overall language patterns and forms of syntax used within the urban environment. These have increased the amount of potential selections the urban students get exposed to. Ironically, the mere fact that books and learning materials are all produced and organized by individuals located in the urban environment means that the rural setting is underrepresented in learning and language materials. As a result three years of English in the urban secondary school may become more meaningful linguistically than five years of English in the typical rural school. The best way to reduce the gulf is to ensure that rural lifestyle is heavily reflected in the language/learning materials and extend what facilities have been created in the exceptional rural school at Gindiri to most other rural schools.

3) Many English patterns could be more meaningfully understood if the students had a better command of the lexical items of the language. Often students become unduly thrown off by such innocuous words like "geliguite" and "roosting sites" in the reading passage of this study. This unwarranted fright was further confirmed through students choosing first but later rejecting the appropriate answer to some questions.

Reading ability could be radically improved by training students to acquire an efficient strategy for lexical manipulation. Students could be trained to develop contextual skills and sensitivity to synonyms, homonyms and hyponyms. At the beginning level, the students could be helped to build up a rich bank of useful words through wide range reading.

The above points would seem to agree with Oller's (1970) view that the main areas of language are integrated. Oller stresses that meaning could not be isolated from any of these three: syntax, semantics and pragmatics. Oller sees syntax and "...the sequencing of language elements in time," and suggests that we conceive of this "as a left-to-right ordering existing at different levels simultaneously." Closely related to syntax is semantics which Oller defines "as the selection from among the contrasting elements of a given syntactic and/or pragmatic type ranging from the atoms to the molecules of language structure."

To complete the triangular relation Oller defines pragmatics "as the dynamic interaction between the speaker's knowledge of the world (including the immediately perceived information) and the syntactic-semantic dimensions."

*Implicit in Oller's view is the fact that playing down the* contribution of any of the three would almost definitely reduce the impact of the contents on the decoder. It is however not the case that at every instance of sentence construction each and every one of the three must play an equally important role. In Oller's words,

> All of this implies that meaning in even the simplest of sentences involves relations with settings. Linguistic structure does not exist apart from the knowledge of the world which the speaker-listener communicates about. Neither meaning nor syntax exists in a vacuum; nor do the two of them exist independent of situational setting.

Students should be made to realize the interpenetration of the different language parts. This could be done by combining or sandwiching the skills focused in any particular language lesson.

4) There appears to be some evidence that certain structural forms present more of a burden to the ESL learning than other patterns. Compiling a handy list of the most difficult or troublesome set of structures could be a useful step. The danger however is that of potential mis-use. Most difficult syntactic forms cannot be learned by memorization. For instance, knowing the syntactic form: "My brother works in the dockyard" is just one step; judging how to take the next step is another task on its own. Thus an effective way through which such difficult forms could be mastered is through learning them in their innumerable contextual possibilities. Essentially this boils down to encouraging students to read more materials so that both lexical and syntactic forms could be systematically and spontaneously recycled.

## Conclusions

The study was primarily designed to investigate whether performances with syntactic structures and reading comprehension were positively correlated. The subjects were male and female ESL

Nigerian students in the 3rd and 5th years of secondary schools located in both urban and rural centers.

Only in two rural schools (Malumfashi and Kontagora) were performances with syntactic structures and reading comprehension positively correlated. In all other cases there were no correlations between good performance with syntactic structures and reading comprehension.

There was therefore no clear-cut geographical pattern in the outcome of the investigation on correlations. This very fact seems to suggest that non-geographical features may be responsible for some of the varying standards observed in the different schools. Some of these non-geographical characteristics were revealed through face-to-face interviews during the data collection exercise. Some of the characteristics included the following:

1) In some secondary schools there were abundant library facilities. (This point is discussed more fully elsewhere.) These facilities seemed present in only those schools where language achievement was high.

2) The high-achieving schools revealed by this study all possessed teachers of English with specialist ESL training. In the weak secondary schools it was found that most of the teachers taught English simply because there were no specially trained teachers available.

Adeyanju (1976) in making a similar report stated that,

> The present study has found the learners highly motivated but the make-up of teachers, their methods, and materials are deficient, making the English as a Second Language situation in the four states in this study gloomy...

> Seventy-six and two-tenths percent of all teachers in this study have no ESL training but are teaching it. Only 26.1% have attended any in-service training and only 26.9% read any professional journal.

It would seem that an improvement in the quality of the teachers could help improve the language teaching level and,possibly,the students' performances with syntactic structures and reading comprehension. An increase in the language-promoting facilities is likely to generate greater language-related activities among the ESL Nigerian students. Such an improvement would probably help bring about a more efficient use of syntactic structures among the students.

## Limitations

The results of this study must be interpreted in the light of its limitations. In assessing whether ESL Nigerian subjects' performances with syntactic structures and reading comprehension were positively correlated, only a test of some limited length could be administered. For practical reasons the multiple-choice format was used for the syntax and reading comprehension tests. The time factor and administrative constraints ruled out the free response format. In addition, financial considerations drastically reduced the size of the sample covered in the study. Only six secondary schools drawn equally from urban and rural locations were included in the sample. The findings must therefore be limited to the population from which the final sample had been drawn.

The inclusion of all the major syntactic forms was ruled out by the constraint of length. In the interest of the cooperating schools

the tests were designed for a one-hour period.

The investigator was physically a resident in Madison, Wisconsin, U.S.A., while carrying out the greater part of this study. The subjects for the study were in Nigerian secondary schools located in urban and rural centers. The long distance between the investigator's temporary residence and the locations of the subjects reduced the number of field trips that were made. The investigator had to fall back on the assistance of professional colleagues.

## Suggestions for Future Research

This study was aimed at establishing whether positive correlations existed between good performances with syntactic structures and reading comprehension.

A similar investigation should be conducted to establish the potential causal relations between good performances with syntactic structures and reading comprehension.

Further investigation should be carried out with a larger sample of ESL Nigerian subjects. This will reveal whether a particular pattern of performance based on geographical locations does indeed exist.

More tests of the objective and free response formats should be conducted to establish whether the best performers in English will consistently remain the top performers after taking the language tests in different formats.

Some longitudinal studies should be carried out of the secondary school subjects in Nigeria to assess the post-secondary school language

performances of those high-achieving students. This would show whether such excellent students continued to perform exceptionally well or whether their secondary school performances were a result of chance occurrence.

Results from such investigations should help provide further insight about the teaching of syntactic structures and reading comprehension especially in the ESL situation of Nigeria.

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Appendix A

A Test of Grammar & Reading Comprehension

Candidate's Name: _____ School _____

Sections A and B: Total Time Allowed, 60 minutes. Answer all questions. Credit will be given for speed and accuracy.

Section A: Time allowed: 20 minutes.

After each of these sentences, a list of possible interpretations of all or part of the sentence is given. Choose which interpretation you consider most appropriate for each sentence and record your answer by circling the letter against your selection.

1. 'Johnson may have come," said Obaje.

   From this sentence we know that Obaje:

   A. knew that Johnson had permission to come.
   B. knew that Johnson had come.
   C. did not know whether Johnson had come or not.
   D. knew that Johnson had not come.

2. Considering all the money Jegede earns, he ought to have bought a house already.

   From this sentence we know that Jegede

   A. thinks too much about earning money to be able to buy a house.
   B. does not own a house even though he earns a lot of money.
   C. will have to spend all the money he has earned if he wants to buy a house.
   D. needs a house but hasn't earned enough money to buy one.

3. If Nigeria should continue its present rate of oil production, it will be one of the richest countries in Africa.

   This means that

   A. Nigeria is the richest country in the world.
   B. Nigeria's wealth may be found in other products than oil.
   C. Nigeria is a small producer of oil.
   D. Nigeria may become one of the richest African countries.

4. But for his memory he would never have won that quiz. This means

A. he won because he is intelligent.
B. he did not win because he had forgotten the answer.
C. he won because he has a good memory.
D. he did not win though he remembers a great deal.

5. He is too enthusiastic a man to be daunted by that setback.

This statement means that

A. he was temporarily unsuccessful but did not give up.
B. he gave up after that failure.
C. he was successful but gave up.
D. he was rather discouraged after that failure.

6. Presuming the hunter dead, the buffalo left him and walked away.

This means

A. the hunter was quite dead before the buffalo walked away.
B. the buffalo left the hunter because it knew that the hunter would die.
C. the buffalo walked away because the hunter was dead.
D. the buffalo walked away because it thought the hunter was dead.

7. If you hadn't been so anxious, I shouldn't have lost such a lot of time today.

The sentence means

A. you were so anxious that I lost much time.
B. you were not anxious so we lost no time.
C. you were not anxious but we lost much time.
D. I was very anxious that you lost much time.

8. I ought . . . a present to Afotima by now.

A. to send.
B. to have been sent
C. to be sending
D. to have sent

9. There may be some difficulty . . . the two ideas.

A. to be reconciling
B. in reconciling
C. of reconciling
D. for the reconciling

10. To do some exercise is a precaution always . . . if you want to remain healthy.

    A. to have taken
    B. being taken
    C. to be taken
    D. to have been taken

11. Next year when he retires, Abubakar . . . twenty-two years in the service.

    A. will spend
    B. has spent
    C. will be spending
    D. will have spent

12. Tunde said he was looking forward to . . . host to them.

    A. play
    B. playing
    C. have played
    D. to be playing

13. He is most unlikely ever . . . to this village after that humiliating experience.

    A. being returned
    B. returning
    C. to have been returned
    D. to return

14. You . . . there as he was not expecting you.

    A. needn't have gone
    B. needn't to go
    C. needn't going
    D. needn't to be going

15. It is certainly . . . .

    A. a six-hour's flight
    B. a six-hours' flight
    C. a six-hour flight
    D. a six-hours flight

16. Afegbua has never been afraid to speak . . . .

    A. in the public
    B. in a public
    C. public
    D. in public

17. In spite of the repeated warning from her grandmother, Ngozi. . . during the family meeting.

A. made herself fool
B. made a fool of herself
C. made a fool for herself
D. made fool of herself

18. I won't bolt the door . . . .

A. so you get home late
B. when you got home late
C. so that you will get home late
D. in case you get home late

19. . . . was well known to us.

A. That our team being weak
B. Our team as being weak
C. As our team was weak
D. That our team was weak

20. I would rather use my own desk if you don't mind.

This sentence means

A. I prefer to use my own desk.
B. I will use your desk if you allow me.
C. I am reluctant to use my desk.
D. I will use my desk if nobody else wants it.

21. Joe: You don't mind doing this work for me, do you?
Anne: No, I don't.

Anne means that she

A. will do the work on certain conditions.
B. won't do it at all.
C. is prepared to do the work.
D. will reluctantly do the work.

22. Headmaster: Come and pay your fees tomorrow.
Emeka: I might just as well pay them today.

From this conversation we know that Emeka

A. was ready to pay his fees that day.
B. wouldn't pay his fees unless he paid them that day.
C. preferred to pay them the following day.
D. didn't have the fees with him though he wanted to pay them.

23. The preacher was emphasizing that however rich and mighty we might be, we would not escape from the troubles that were ahead.

The preacher was emphasizing that

A. it was possible to escape the troubles even though we had wealth and power.
B. wealth and power would not protect us from the troubles.
C. because we had wealth and power we would escape the troubles.
D. only those with wealth and power would escape the troubles.

24. He turned down a job which many a man would have gladly taken up.

The sentence means that

A. after he had thought it over, he gladly took up the job.
B. he was upset because the job had been given to another man.
C. one man accepted the offer because he had rejected it.
D. many people would accept the offer he rejected.

25. I like . . . my cake hot.

A. eating
B. being eaten
C. having eaten
D. to have eaten

26. But for the timely arrival of the police, the suspect . . . by the angry crowd.

A. will be lynched
B. was lynched
C. was being lynched
D. would have been lynched

27. . . . a helicopter, we would have saved the lives of the school children.

A. Haven't we had
B. Had we had
C. Did we have
D. May we have

28. He . . . that letter, but he had no time.

A. should write
B. should have written
C. may write
D. should be writing

29. Most of the spectators thought that his failure . . . the incident was poor refereeing.

A. to notice
B. not having noticed
C. not noticing
D. not being noticing

30. . . . your intentions, you had no right to enter my room while I was out!

A. However
B. Whatever
C. In spite
D. Whichever

31. The weather has been beautiful . . . the Americans arrived.

A. for
B. since
C. while
D. during

32. . . . it was very windy, neither Yoji nor Paul cared much.

A. However
B. Nevertheless
C. Yet
D. Although

33. The fruit was so tasty . . . I ate all of it.

A. because
B. as
C. that
D. than

34. Kehinde will never grow fatter . . . hard she tries.

A. however
B. yet
C. despite
D. even though

35. Everyone assumed he would score . . . his shot was wide.

A. because
B. therefore
C. if
D. but

36. Akau wanted to borrow some books from the library but found . . . closed.

A. they
B. them
C. it
D. their

37. "We've forgotten our fruits." It makes no difference. You can have . . . "

A. some of us
B. some of our
C. us some
D. some of ours

38. "Is your new car like Biodun's and Yoyo's?"
"Yes, it's almost the same as . . . "

A. they
B. theirs
C. them
D. their

39. "Is Jane just your neighbor or is she a friend of . . . ?"

A. you
B. your
C. yours
D. them

40. The director's wife was seriously ill so we visited . . . .

A. her
B. them
C. she
D. hers

41. When asked what her brother does, Anne answered "He . . . in the dockyard."

A. is working
B. working
C. works
D. be working

42. . . . becomes interesting in summer.

A. To swimming
B. The swimming
C. To be swimming
D. Swimming

43. . . . surprised all who knew him.

A. But he stole
B. Since he stole
C. When he stole
D. That he stole

44. The principal promised the students to sit the exams. This means that:

A. The principal will take the exams.
B. The principal will set the exams.
C. The students will take the exams.
D. The principal will remain with the students during the exams.

45. . . . meant discipline at all times.

A. He's becoming the supervisor
B. He is becoming the supervisor

C. His becoming the supervisor
D. He has become the supervisor

46. Is that the street . . . you had the accident?

A. when
B. why
C. where
D. which

47.. Tzi's photograph . . . you saw was taken months ago.

A. who
B. whose
C. whom
D. which

48. They said Dr. Omojuwa was coming . . . ?

A. wasn't it
B. didn't they
C. isn't it
D. wasn't he

49. Social workers are concerned with the problem of man in . . .

A. some society
B. society
C. a society
D. the society

50. One of his sons.....

A. have
B. has
C. been have
D. having

51. During the translation test the teacher caught the students copying . . . work.

A. each another's
B. the other's
C. each other's
D. each others'

52. The farmers want some of . . . yams grown by the research center.

A. them
B. that
C. one of that
D. those

53. Our one-year-old twins walk . . . .

A. too rather fast.
B. rather too fast
C. very rather fast.
D. quite rather fast.

54. Isaac Rammopo has published his eagerly awaited bcok cn poetry, . . . ?

A. hasn't he
B. isn't it
C. has he
D. didn't he

55. Besides the Game Reserve, the Americans visited . . . places in Nigeria.

A. all the exciting many other
B. all the many other exciting
C. the many other all exciting
D. all the other exciting many

56. Before the exams everyone had to read . . . books.

A. very many more
B. more of many
C. very much more
D. very more many

57. The police want . . . officers provided extra security.

A. theirs
B. his
C. there's
D. their

58. The council did not discuss all the issues presented . . . it.

A. beside
B. with
C. before
D. in front of

59. You think I'm being stubborn, . . . ?

A. aren't I
B. don't you
C. isn't it
D. am I

60. The committee thanked the public for giving the police . . . .

A. those information
B. some informations
C. some information
D. informations

seven complete plantings had to be done as each set of successive young plants was destroyed by grasshoppers. Perhaps the greatest harm that the insect did was that farmers had to delay planting their crops beyond the point at which good yields could be expected before there were no more rains.

The grasshopper is by no means unknown in the south of the country, in fact it is found in larger numbers there because of the higher moisture content of the atmosphere. If a farmer in the South does not find the grasshopper on his farm some other insect pests are there.

1. According to the first paragraph the quelea birds feed on masakwa crop.

   A. because it is their usual diet.
   B. so that the crop may cease being a nuisance to the grazing cattle.
   C. because wild grass seed is not as sweet.
   D. when wild grass seed is not available.
   E. to provide for them the much-needed vitamins.

2. The underlined word, this, in paragraph one refers to:

   A. quelea bird
   B. wild grass seed
   C. masakwa crop
   D. the usual diet
   E. considerable damage

3. Why has the killing of the birds not provided the expected result?

   A. Only very few birds could be destroyed in a year.
   B. The cost is rather prohibitive.
   C. The birds breed young ones to replace those killed.
   D. The killing is a cruel act.
   E. The result has been counteracted by the menace of the cattle.

4. The word "them" in the second paragraph refers to:

   A. roosting sites
   B. gelignite and petrol
   C. feathers
   D. birds
   E. carcasses

5. The writer is suggesting that the birds would be 'less likely to attack crops' because

A. all the birds will have been killed.
B. the birds do not eat crops if the usual diet is available.
C. the crops will have been harvested.
D. the birds can effectively be scared away from the crops.
E. the crops are poisonous.

6. Bird manure is extensively used by farmers in Bornu most probably because

A. cattle manure is not obtainable.
B. it is produced in larger quantities.
C. the farmers prefer local material.
D. it is richer than cattle manure.
E. there are more cattle than birds there.

7. The underlined word, we in paragraph three refers to:

A. Ministry of Agriculture officials
B. people in Bornu province
C. farmers of Bornu province
D. Ministry of Animal and Forest Resources officials
E. all those reading the passage.

8. According to paragraph four, what "are in fact sold locally"?

A. cattle manure
B. cattle
C. quelea birds
D. crops
E. birds' droppings

9. From the passage we realize that:

A. The crop yields in the country are high.
B. The crop yields amount to that expected.
C. No farmer knows much about crop yields.
D. The crop yields have been consistently low.
E. The country has many reasons for high crop yields.

10. In what way does the grasshopper contribute to shortage of food-stuffs in this country?

A. They attack the farmers and prevent them from working on their farms.
B. They eat up the young plants of our food crops.
C. They do not allow farmers to harvest the food crops.
D. Rains do not fall on farms where there are grasshoppers.
E. Knowing that grasshoppers are around some traders hoard their food items.

11. Why did some farmers in Kano State have to plant millet crops seven times in 1975?

A. There was a prolonged period of rainfall.
B. They took the advantage of the absence of insect pests that year.
C. The crops they planted were eaten up on each occasion.
D. They particularly wanted a good yield of millet that year.
E. They probably had a way of supplying water to their farms when there was no rain.

12. What was the effect of the farmers having to wait until the insects had cleared before they planted their crops?

A. The crops could not mature before the rainy season ended.
B. The farmers had very good yields.
C. The farmers had no crops to plant as the crops had gone bad during the period of waiting.
D. The grasshoppers probably died of starvation.
E. The work became too much for the farmers to cope with.

13. Why is the grasshopper found in larger numbers in the South?

A. There is more moisture in the atmosphere.
B. There are more rains in the South.
C. The North has no green grass for the grasshopper to feed on.
D. The weather in the North is too cold for it.
E. The grasshopper has been more successfully controlled in the North.

14. From the last paragraph we understand that:

A. All the farmers have only grasshoppers on their farms.
B. The farmers in the North and South have exactly the same experience.
C. Farmers throughout the country have at least one insect or the other.
D. Some farmers have insects both on their farms and homes.
E. Farmers without grasshoppers on their farms look for other insects.

Passage B

'You don't like our village any more, do you?' the chief said, once more addressing himself to Gregory. He adjusted his tie and, after commenting on the absence of the buttons on his jacket, added, 'You don't like us. You prefer to spend your holidays at school.'

'That doesn't mean that I don't like the village, sir,' Gregory said and produced his vague smile. 'I have been very busy these last two years and I have had to do some of my work during the holidays.'

Jingala jerked and looked at Gregory without a smile on his face. Then, after turning his head so that he looked at the chief straight in the face, he said, 'What he means, sir, is that he had been receiving some private lessons from one of his masters during the holidays.'

'I see,' the chief said in his nonchalant manner. Again he adjusted his tie after loosening the knot which seemed to make his breathing hard and heavy. 'If you want to learn and if you think you can learn more by taking private lessons during the holidays, by all means do so,' he continued. 'I want my village to be educated, and I am always proud of clever boys like you. But don't spend all your time on book learning and forget your own people. That would be a disaster, my child.'

Gregory smiled, then said, 'Yes, sir.' He started wondering how long such a dull conversation was going to last. All three of them sat very uneasily as though they were expecting something very terrible to happen any moment.

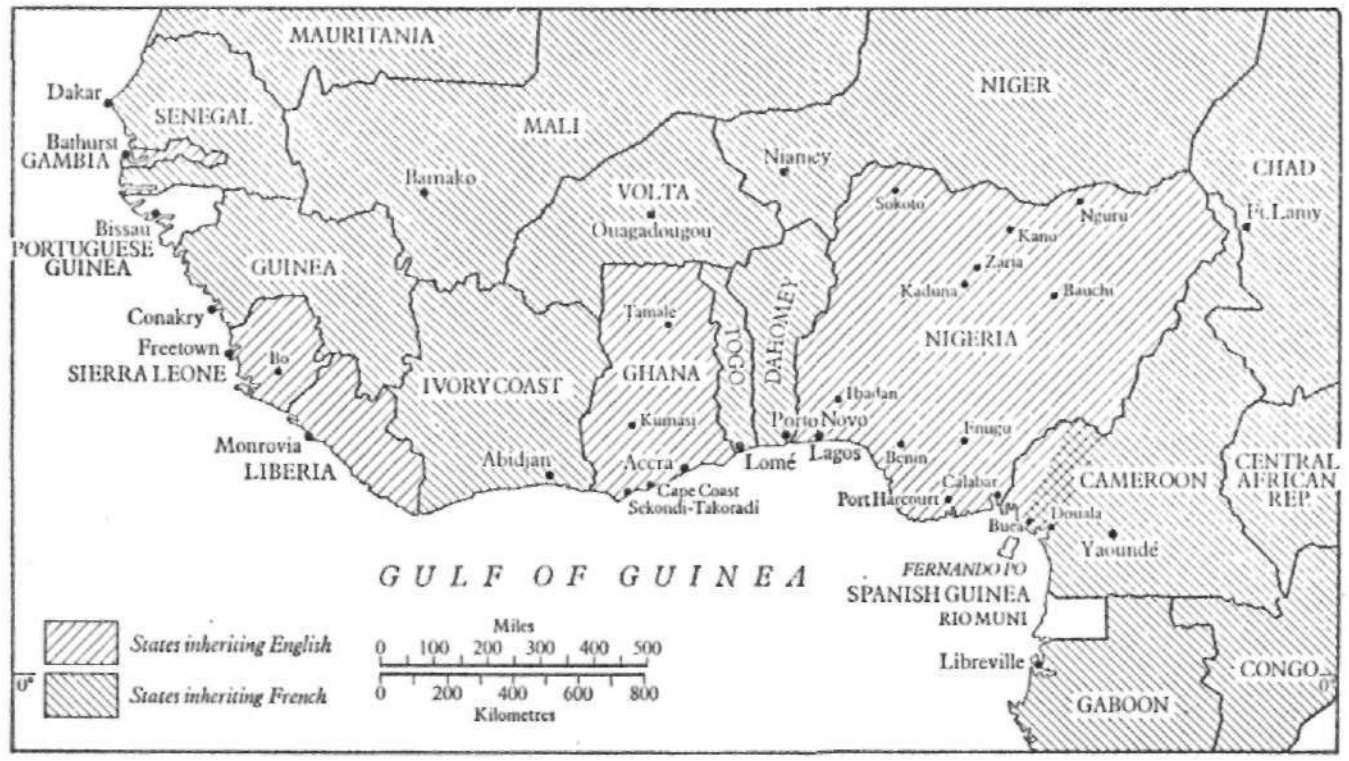
'But do you know what lessons he has been receiving during his holidays, sir?' Jingala asked and leaned forward towards the chief.

'Yes, I understand you wanted to become a priest,' the chief said.

Gregory remained silent for a while, deciding in his mind whether to phrase his reply in the past as the chief had put it, or to employ the present tense since, in his own opinion, he had not changed his mind on the subject.

'I did sir,' he finally said.

'If I hadn't gone to collect him at the time I did, sir,' Jingala said, 'he would still be there today, dreaming about becoming a priest and never even bothering to tell us here about his intentions. It's a very bad school, sir. They persuaded him so thoroughly that I had to fight to get him out of the school as though he wasn't my son at all. If you had been present, sir, you would have thought he was their son and that I was trying to snatch him away from them.'




West Africa

Map 1. From Spencer, J. (ed.) The English Language in West Africa, Longman, 1971, pp. 35-48.

# Appendix C

## *HAUSA*

### Consonant Chart

| | *BILABIAL* | *LABIO-DENTAL* | *ALVEOLAR* | *RETROFLEX* | *PALATO-ALVEOLAR* | *PALATAL* | *PALATALISED VELAR* | *VELAR* | *LABIALISED VELAR* | *GLOTTAL* | *PALATALISED GLOTTAL* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Plosive | b | | t d | | | | kj gj | k g | kw gw | ʔ | ʔj |
| Glottalised Plosive | ɓ | | | | | | ƙj | ƙ | ƙw | | |
| Fricative | | f | z | | ʃ | | | | | h | |
| Glottalised Fricative | | | sʔ | | | | | | | | |
| Affricate | | | | | tʃ dʒ | | | | | | |
| Nasal | m | | n | | | | | [ŋ][1] | | | |
| Flap/Tap | | | ɾ | ɽ | | | | | | | |
| Lateral | | | l | | | | | | | | |
| Approximant | | | | | | j | | | w | | |

[1] [ŋ] is a syllable-final allophone of /n/.

### Vowel Chart

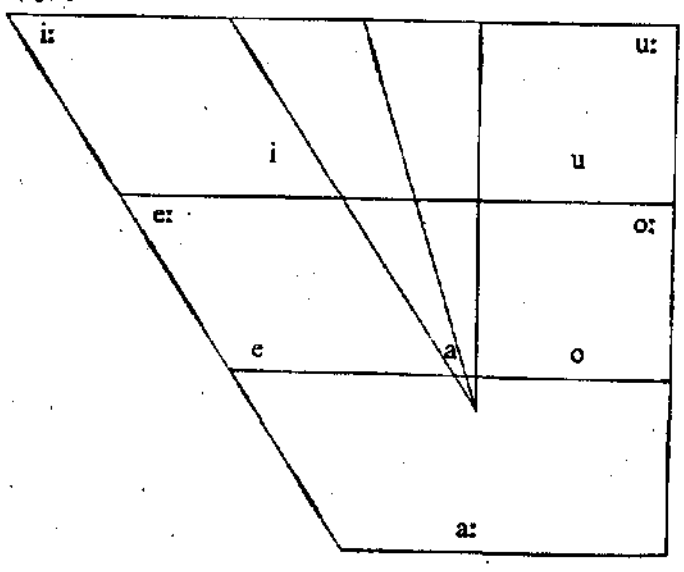



Chart 1

(This chart and Chart 2 and 3 are from Dunstan, E. (ed.): Twelve Nigerian Languages. African Publishing Corporation, New York, 1969.)

*YORUBA*

**Consonant Chart**

| | *BILABIAL* | *LABIO-DENTAL* | *ALVEOLAR* | *PALATO-ALVEOLAR* | *PALATAL* | *VELAR* | *LABIAL VELAR* | *GLOTTAL* |
|---|---|---|---|---|---|---|---|---|
| Plosive | b | | t d | | | k g | kp gb | |
| Fricative | | f | s | ʃ | | | | h |
| Affricate | | | | dʒ[1] | | | | |
| Nasal | m | | [n][2] | | | | | |
| Tap | | | ɾ | | | | | |
| Lateral | | | l | | | | | |
| Approximant | | | | | j[3] | | w | |

[1] In many speakers this sound is a voiced palatal plosive [ɟ].
[2] [n] is an allophone of /l/ which occurs before nasalised vowels.
[3] In many speakers this sound is a voiced palatal fricative.

**Vowel Chart**

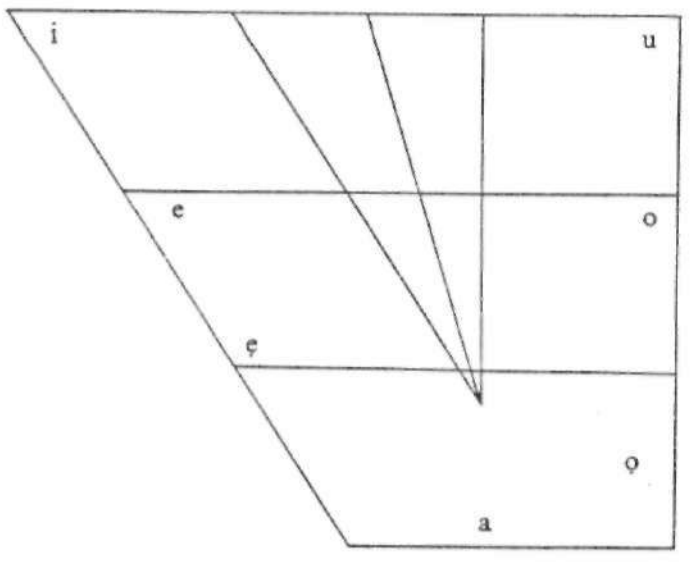



Chart 2

*IGBO*

**Consonant Chart**[1]

| | *BILABIAL* | *LABIO-DENTAL* | *ALVEOLAR* | *PALATAL* | *VELAR* | *LABIAL VELAR* | *GLOTTAL* |
|---|---|---|---|---|---|---|---|
| Plosive | p b | | t d | | k g | kp[2] gb[3] | |
| Aspirated Plosive | ph bh | | th dh | | kh gh | | |
| Fricative | | f v | s z | | ɣ | | h |
| Nasalised Fricative | | f̃ ṽ | s̃ z̃ | | | | h̃ |
| Nasal | m | | n | ɲ | ŋ | | |
| Roll | | | r | | | | |
| Nasalised Roll | | | r̃ | | | | |
| Lateral | | | l | | | | |
| Approximant | | | | j | | w | |

[1] Note that [tʃ], [tʃh], [dʒ] and [dʒh] are found in Igbo, but these are better regarded as combinations of /t/ + /j/, /th/ + /j/, /d/ + /j/ and /dh/ + /j/, respectively (see section on Syllable Structure).

[2] This is usually a voiceless glottalic ingressive bilabial plosive, with little or no velar contact.

[3] This is usually a bilabial implosive with a labialised off-glide. In some dialects, e.g. Kwale, it is a voiced labial velar plosive, in other dialects the two sounds may be in free variation with each other.

**Vowel Chart**

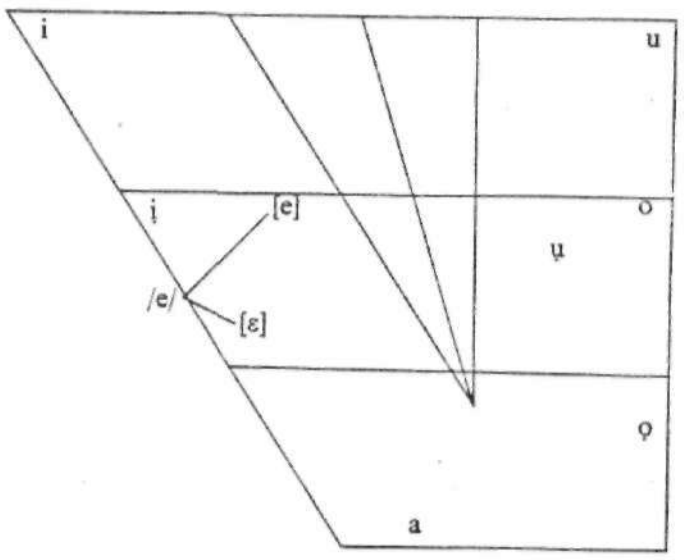



Chart 3