AN INVESTIGATION ON THE LANGUAGE STRUCTURES IN BEGINNING READERS COMPARED WITH THE LANGUAGE STRUCTURES TAUGHT FOR ORAL PROFICIENCY IN THE TEACHING OF ENGLISH AS A SECOND LANGUAGE IN THE PHILIPPINES

by

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We accept this dissertation as conforming to the required standard

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Date September 10, 1969
ABSTRACT

The major assumption underlying this investigation was that pupils learning English as a second language read more effectively if beginning reading materials consist of language structures which are taught in the oral language program. It was believed that structures learned in the oral language course would reinforce reading skills and vice versa.

Research evidence based on modern linguistic theory has indicated that patterns of form and arrangement of words, not words in isolation alone, contribute to meaning. It has also been shown that comprehension is a function of the degree of similarity between the language structures learned orally and the language structures used in the reading passage.

The present study analyzed and compared the language structures in the beginning readers with the language structures which are taught for oral proficiency in the teaching guides for English used in Philippine schools. The T-unit, which is the shortest grammatically independent segment of language, consisting of one independent clause and all subordinate clauses attached to it was the basis of syntactic analysis and measurement.

The language samples from the oral language guides and the reading texts were analyzed and compared on two levels. The first-level analysis was concerned with the underlying basic patterns and the length of the T-units as well as other
related structural features. The second level analysis determined the kinds and number of constructions produced by sentence-combining transformations.

The analysis of data revealed that there was a close similarity between the kinds of basic patterns which occurred in the oral language materials and in the readers. The frequency of occurrence centered around a few commonly used patterns. There were relatively more rare patterns in the reading passages than in the oral language materials.

The length of the T-unit in the readers was greater than in the oral language materials. The greater length of the T-unit in the reading texts was due to the greater number of subordinate clauses and non-clausal constructions produced by sentence-combining transformations.

The kinds and functions of constructions resulting from sentence-combining transformations which occurred with highest frequencies in the reading texts were similar to those in the oral language materials. But the data also indicated that types of rare constructions occurred more frequently in the reading passages than in the oral language materials.

The greater number of sentence-combining transformations reflects greater complexity of language structures in the reading passages compared to the language structures in the oral language materials. This finding suggests that when the Filipino pupil begins to read English, his oral language background seems inadequate to cope with the difficulty level related to the complexity of structures of his reading materials.
Further investigations are necessary to provide more useful guidelines for evolving effective reading materials in second language teaching. Suggested follow-up studies in second language classroom situations include comparison of comprehension between commonly used patterns and rare patterns, an investigation to establish a hierarchy of difficulty of the different kinds of sentence-combining transformations, and a quantitative study to determine the relationship of comprehension to the number of transformations in a reading passage.
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CHAPTER I
INTRODUCTION

MAJOR ASSUMPTIONS AND IMPORTANCE OF THE STUDY

The purpose of this study was to determine whether the materials used in Philippine schools to teach children to read English as a second language are written in the same language structures which pupils learn for oral proficiency. The research was designed to analyze and compare the language structures in the authorized basal readers with the language structures which are taught for oral proficiency in the teaching guides for English used in Philippine schools.

Research evidence based on studies in linguistics and language teaching has pointed to the importance of oral language as a base for learning to read. The key findings in Loban's study supported the theory that "competence in the spoken language appears to be a necessary base for competence in reading and writing."¹

The major assumption underlying this investigation was that children learning English as a second language read more effectively if beginning reading materials consist of structures which are taught in the oral language program. The process of

learning to read at the initial stage is essentially learning to associate the language learned orally with its written form, and to understand its meaning. The reader can readily grasp the meaning of the passage if he already knows the meaning of its corresponding oral form. With adequate oral background therefore, learning to read will be easier and will mainly consist of mastering the writing system. The learner will not be confronted with the additional problem of learning an unfamiliar language structure and its meaning.

Strickland's study was based on the premise that "a study of children's speech, its structure and its pattern of arrangement and flow may offer suggestions for the construction of better reading textbooks for beginners and possibly for older children as well."² It would also be reasonable to believe that reading materials for pupils learning English as a second language in the Philippines should be based on curriculum materials in the oral language courses. The structures taught in the oral language lessons in Philippine schools constitute mainly the base for the speech repertoire in English of Filipino pupils.

Another major assumption of this study was that language structure is an important variable in reading comprehension.³

²Ruth G. Strickland, The Language of Elementary School Children: Its Relationship To The Language of Reading Textbooks And The Quality of Reading of Selected Children, (Bulletin of the School of Education, Indiana University, 1962), p. 3.

Recent studies in linguistics and reading have advanced the theory that patterned groupings of words give cues to meaning, not words in isolation alone. Specific meanings are "produced by the patterns; if you miss the patterns, you miss the meanings."\(^4\)

The reader's ability to understand a passage depends on his ability to perceive structural relationships. Thus the ease or difficulty of understanding a passage is related to its grammatical complexity. A sentence that has undergone transformations and derivations will be more difficult to understand than its basic sentence pattern.

It is believed that language structures to be used in beginning reading materials should be restricted to those which are taught in the oral language lessons. Ruddell\(^5\) showed that comprehension is better in reading passages which are made up of structures frequently used in children's oral language, while Loban's study\(^6\) indicated that the relative complexity of a structure indicates the relative difficulty of producing and comprehending it.


\(^5\)Ruddell, \textit{op. cit.}

\(^6\)Loban, \textit{loc. cit.}
English is taught as a second language in Philippine schools. It is the language of instruction from grade three through university. In the first two grades, systematic instruction in oral English is a regular part of the curriculum, while classroom instruction is carried on in the pupil's native language. At this time, pupils also learn to read their native language.

Beginning reading in English is postponed to the latter part of grade two. The child reads teacher-prepared materials on charts, flashcards and the blackboards. The reading materials are confined to the same dialogs, rhymes, and stories previously mastered in the oral languages lessons.

Formal book reading in English begins in grade three when it is believed that the learner has acquired reasonable oral facility in the basic sounds and structures of English. By that time, the pupil would have had two years of instruction in oral English. The child would also have learned to read his native language.

The pupil's ability to read the Filipino language contributes to his reading English insofar as mechanics and physical preparation are concerned. He would have acquired such skills as eye movement, letter discrimination and recognition by the time he starts reading the second language. But the ability to read the first language can also be a great handicap. Differences in the sound and structure of English
and the native language create difficulties in the comprehension of the passage in English unless the pupil has oral familiarity with the text. The carry-over of the native language sounds to the English text will distort the rhythm and intonation of the passage and the reader will fail to perceive structural relationships of thought units. Rojas found that if bilingual children "are to learn to read well, they . . . must learn to recognize sounds used in English words. If the sound system of their vernacular is transferred to English, meaning is confused." This difficulty in comprehension is compounded if the pupil reads unfamiliar words and sentence patterns which he has not heard or spoken before.

The difficulties in learning to read English as a second language stress the need for using the pupil's oral language as a basis for developing his reading materials. Familiarity with the sounds and concepts of the reading passage will enhance progress in learning to read, while the reading process will reinforce oral mastery.

---

STATEMENT OF THE PROBLEM

The major questions which this study was designed to answer were the following:

1. What is the degree of relationship between the language structures in the authorized basal readers and in the Teacher's Guide for English in Grade III based on the following linguistic features:
   a) Mean length of the T-units?
   b) Mean length of the sentence?
   c) Average number of T-units per sentence?
   d) Average number of subordinations per sentence?
   e) Average number of sentence-combining transformations per sentence?

2. What is the degree of relationship between the number and kinds of basic patterns and their derived forms in the authorized basal readers and in the Teacher's Guide for English in Grade III?

3. What is the degree of relationship between the number, kinds and grammatical functions of constructions produced by sentence-combining transformations in the authorized basal readers and in Teacher's Guide for English in Grade III?

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8 Catalina Velasquez-Ty, et al., We Work and Play, (Transition Reader) First Reader, Level I, Grade Three, (Manila; Bureau of Public Schools); Velasquez-Ty, Fun At Home and Away, First Reader, Level II, (Manila: Bureau of Public Schools).

DEFINITION OF TERMS

The terms indicated will be used in this study as defined below:

1. *Language structure* refers to the patterned grouping of words or the design underlying arrangement of words in a communication unit.

2. *T-unit* is the shortest grammatically complete sentence which consists of one independent clause and all the subordinate clauses attached to it, if any.

3. *Second language* is any language learned after acquiring the basic sounds and patterns of one's native language.

4. *Basic pattern* refers to the structure of a T-unit which has not undergone any process of transformation, and is any one of the nine structural types used in this linguistic analysis.

5. *Sentence-combining transformation* is the grammatical process of deriving one sentence where there would otherwise be two or more.

6. *Matrix sentence* is the base unit into which derived forms of one or more sentences are attached in the process of a sentence-combining transformation.

7. *Constituent sentence* is embedded into a matrix sentence in the process of a sentence-combining transformation.

LIMITATIONS OF THE STUDY

The present investigation was confined to a comparison of the curriculum materials which are used in the oral language
program and curriculum materials in beginning reading. The study did not attempt to present data on the language competence of Filipino pupils who are using these materials in the classrooms.

Previous studies based on the assumption that the spoken language should serve as basis for developing reading materials have compared the language structures found in the readers with the language structures used in the oral language of children. This study, however, which dealt with a second language situation, compared the language structures in the reading textbooks with the language structures which are taught in the oral teaching guides. Curriculum materials in beginning reading were evaluated in terms of their suitability to the curriculum materials in the oral language program, rather than to the actual oral proficiency of children.

The weakness of this study was the lack of evidence to show that the language structures which are expected to be taught for oral proficiency in the teacher's guides for English are used in the oral language of Filipino children. It is known that a gap exists between learning goals and skills as defined in curriculum materials and achievement of learners in the classroom. But at the initial stage of second language learning, it was assumed that reading materials should correspond closely to the oral language materials so that oral mastery could reinforce reading skills and vice versa.

The oral language of an English-speaking child who has mastered the basic patterns of his home language at the age of
six\textsuperscript{10} and has acquired reasonable oral facility can provide sound basis for evolving his reading materials. However, it seemed reasonable to believe that at the initial stage of second language learning, the child's oral language will fail to provide language forms which can serve as foundation for developing effective reading materials and which will, at the same time, reinforce oral language skills.

It was also believed that the comparison of two forms of written language in the readers and in the oral language teaching guides would yield more valid data than the results of previous investigations. It has been pointed out that the weakness of previous studies was the comparison of language structures in the oral language and structures in the written language. Modern linguistic science has shown that oral language and written language are two different kinds of activity. In the present investigation, however, this difference between the two forms of language activity was controlled in comparing the language structures.

The investigation makes no claim to completeness of description of the language structures. Attention was focused only on the grammatical features included in the method of linguistic analysis used in this study.

CHAPTER II

RELATED STUDIES

Previous studies which are pertinent to this investigation are researches concerned with analysis of oral and written language of children using techniques of modern linguistic science, studies on the interrelationship of oral proficiency and reading ability, specifically research in sentence structure as a variable in reading comprehension, and studies on reading for learners of English as a second language.

Most of the studies on the language of children in recent years have applied theories of modern linguistics. Studies of language development of children such as the longitudinal study of Loban,\(^1\) the studies of Strickland,\(^2\) Riling,\(^3\) Sam,\(^4\) and


\(^2\)Ruth G. Strickland, The Language of Elementary School Children: Its Relationship to the Language of Reading Textbooks and the Quality of Reading of Selected Children (Bulletin of the School of Education, Indiana University, 1963).


Stine, have applied techniques of structural linguistics. Later studies reported by Hunt, and O'Donnell, have employed schemes of analysis based on generative transformational grammar.

ANALYSIS BASED ON TECHNIQUES DERIVED FROM STRUCTURAL LINGUISTICS

The basic design of the present investigation is closely related to Strickland's study which compared the patterns of structure of children's oral language with the language of their reading textbooks. But in this study which was concerned with Filipino pupils learning English as a second language, the language structures in which reading materials were written were compared with the language structures in the curriculum materials which are to be taught for oral mastery.


Strickland based her analysis on twenty-five phonological units or "sentences" which were elicited from each of her population of 575 elementary school children enrolled in grades one to six. The syntactic analysis was made on two levels. The first level plotted the sequential arrangements of fixed slots: subject, verb and complements and the movables. The second level identified the subordinate elements of satellites which were used as fillers of the fixed slots and movables. It showed whether words, phrases or clauses were used as subjects, verbs, complements or modifiers.

The number of language patterns reported by Strickland ranged from 658 in the first grade to 1,041 in the sixth grade. But there were only five or six patterns which occurred with greatest frequencies at all grade levels. Among the twenty-five highest ranking patterns in the upper grades, ten were not used by first grade pupils. This finding suggests the development of language maturity of pupils in the upper grades.

Strickland's analysis also proved that the length of the phonological unit or sentence is not a valid measure of language maturity. This evidence supports the assumption adopted in the present investigation that T-unit length, rather than sentence length is a valid measure of linguistic maturity.

Data from the analysis of four widely-used series of reading texts led Strickland to the conclusion that children used a great variety and complexity of language patterns which were not matched in the readers. She showed that the "oral
language children use is far more advanced than the language of the books in which they are taught to read.

The analysis also indicated that there seemed to be no provision for control and developmental sequence of sentence structure from level to level within each reading series which parallels provisions for vocabulary control. Thus Strickland pointed to the need for further research on whether sentence structure is an important variable in reading comprehension.

Using the scheme of syntactic analysis used in Strickland's study, Riling also compared the language structures of reading textbooks with the language structures used orally by elementary school children. Riling's study, however, had several distinctive features. The data included an analysis of the written language of children which was elicited under similar conditions as the oral language samples. Riling made interesting observations on the differences in language behavior between Negro and Caucasian pupils.

Like Strickland, Riling also noted a wide variety of sentence patterns, although only a few patterns were used frequently. She observed that there were considerably fewer patterns in the written than in the oral language of pupils. Some structures which were frequently used in writing were rarely or never used in oral speech.

Riling made the interesting observation that fluency is not a valid index of language maturity. Subjects who were in the lowest quartile in verbal intelligence produced less mazes or tangles in speech. Negro children were more fluent
than the Caucasian children although they did not use the same variety of language structures as Caucasian children.

Riling found that there was a great difference between the structures used in the oral language of children and the structures used in the reading textbooks. But it was also revealed that almost all of the language patterns used in children's writing were found in the reading textbooks. This finding showed that written language is a different type of activity from oral language.

Like Strickland's study, Riling also pointed to the lack of developmental sequence of language structures in the reading textbooks. Sixth grade reading books did not use more complex sentence structures than fourth grade reading books.

Riling's study suggested that subject-matter as well as type of writing greatly influenced the kind of language structures used in reading textbooks. Therefore, she emphasized that reading textbooks should be evaluated on language structure in relation to subject-matter.

Hocker also utilized the scheme of linguistic analysis developed by Strickland. Her study recorded and analyzed 2,500 samples of the oral language of first grade children to determine their patterns of syntax, vocabulary and interests. These data were to be used as guide for developing beginning reading materials.

Hocker reported that of the five basic sentence patterns that occurred in the samples, the three that were used with
greatest frequency were the *Noun-Subject+Verb-Transitive+Noun-Direct-Object*, *Noun-Subject+Verb-Linking+Noun-Predicate Noun*, and *Noun-Subject+Verb-Intransitive*. Numerous variations in the children's oral language were built on these three basic patterns. The frequency trend from simple to more complex patterns indicates the developmental growth of children's language.

Hocker confirmed Riling's suggestion that the context or situation in which children's speech was uttered influenced the kinds of patterns used. She implied that the reading materials must be written in language patterns appropriate to the subject-matter or situation.

The most important feature of Loban's investigation which is related to the present study is his use of the "communication unit" as basis for segmenting and analyzing language samples. He identified the communication unit as a "grammatically independent predication or an answer to the question that lacks only the repetition of the question element to satisfy the criterion of independent predication." This unit of analysis which "consists of a grammatically independent clause with any of its modifiers," is equivalent to the T-unit which was the basis of segmentation and analysis of the present study.

The basic assumptions in the present investigation were derived from the key findings in Loban's study. The longitudinal study of the language development of children from

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8Loban, *op. cit.*, p. 88.
kindergarten through grade twelve showed a definite positive relation between reading and oral language. Subjects who excelled in reading also excelled in oral language.

Loban also supported the theory which is basic to this study that grammatical complexity is a measure of linguistic maturity. Analyzing the elements of structural patterns and the components within these structures, Loban claimed that "not pattern but what is done to achieve flexibility within the pattern proves to be a measure of effectiveness and control of language at this level of language development."

Using techniques based on transformational grammar, Loban analyzed speech samples of two pupils: a boy of high ability group and a girl of low ability. The boy demonstrated greater control over language structure by his ability to make transformations deriving questions, negatives, comparatives, etc. The girl persisted in creating mostly simple declarative sentences. Loban indicated that the technique is capable of showing "all forms of grammatical complexity, but is a slow and long process of analysis."

Sam and Stine also arrived at the conclusion of the previous studies cited that the language development of children is sequential and cumulative. Sam showed that "average sentence length, sentence complexity, use of modification and subordination of ideas, frequency of use of clauses and phrases increase as children progress from one grade level to the next."\(^9\)

\(^9\)Sam, op. cit.
Analyzing the written compositions of intermediate grade children, Sam and Stine emphasized that the most important factor influencing growth in the written language of children is grade level rather than age. They reported that intermediate grade children make use of a wide variety of patterns and that the proportion of complex sentences increased as the children moved from one grade level to the next. But the study also found that this progression did not appear in the use of compound and compound-complex sentences.

ANALYSIS BASED ON TECHNIQUES DERIVED FROM TRANSFORMATIONAL GRAMMAR

Numerous studies on the analysis of the language of school children utilized techniques derived from modern transformational-generative grammar. As suggested by Loban, transformational analysis illustrates the possibilities of a more precise method of measuring grammatical complexity and "holds promise for future research."

The technique of linguistic analysis adopted in the present investigation was based mainly on Hunt's study of the grammatical structures of children, written in grades four, eight and twelve. Analyzing the writing samples of fifty-four children of average IQ, Hunt established the T-unit length as a more reliable index of maturity than other standard procedures.

10 Loban, op. cit., p. 63.

11 Hunt, op. cit.
The analysis indicated that T-unit length is the best index of grade level, clause length is the next best, and punctuated sentence length is the least adequate. A child who underpunctuates and lengthens his sentences by stringing T-units with *ands* was regarded as linguistically immature.

In the analysis of structures within the T-unit, it was shown that the major factor that lengthens the T-unit is the increase of non-clause modifiers of nouns and noun clauses. Older students reduced short clauses to mere modifiers which were consolidated with the same noun in another clause.

Hunt indicated that grammatical difficulty lies inside the T-unit. He suggested that this method of analysis might be applied to books of reading designed for various grade levels. Thus the present investigation was an attempt to implement this recommendation.

Besides determining the sequential pattern of the main clause, O'Donnell attempted a deeper analysis of the structural complexities of children's language by analyzing the kinds of sentence-combining transformations within the T-unit. Like Hunt, O'Donnell showed that as students grow older they learn to consolidate independent clauses to non-clausal structures to form one from two or more sentences.

The data obtained by O'Donnell showed that the number of sentence-combining transformations absorbed by T-units increased with every advance in grade level.\(^\text{12}\) The greatest and most significant increases from one grade level to the next

\(^{12}\)O'Donnell, *op. cit.*, p. 77.
were in the use of transformation-produced nominals and adverbials. On the other hand, the kind of sentence-combining transformation by coordination of main clauses decreased significantly in grade seven.

O'Donnell concluded that the ability to produce transformation by deletion is a better measure of language development than the ability to produce transformation by addition or substitution. Thus, it was noted that "such clauses as in, The dove saw that the ant was drowning were easier to manage and earlier added to the child's repertory than the reduction of them to a single participial modifier in The dove saw the ant drowning. \(^{13}\)

Using techniques derived from transformational-generative grammar, Menyuk\(^{14}\) analysed the tape-recorded speech of nursery school and first grade children. With the data obtained, she attempted to write a grammar for children including phrase structure and transformational rules.

The study revealed that "all the basic structures used by adults to generate sentences could be found in the grammar of nursery school children. Most of the basic structures are acquired at an early age and are used consistently." It was

\(^{13}\)O'Donnell, Ibid.

shown in the study that maturation is the most significant factor in increasing the child's control of syntactic structures.

**STUDIES ON THE RELATIONSHIP OF LANGUAGE STRUCTURE AND READING COMPREHENSION**

The basic rationale underlying this study comparing the structures taught in the oral language program with the structures in which reading materials are written is the theory advanced by modern linguistic science that structure or patterned groupings of words carry meaning. Recent studies on the application of linguistics to language teaching have demonstrated significant relationship between language structure and reading comprehension.

Ruddell\(^{15}\) followed up Strickland's recommendation for more research to determine whether language structure is an important variable in reading comprehension. He tried to determine the effect of similarity of oral language structures and language structures in reading passages on reading comprehension.

Six controlled reading passages were designed using patterns of language structure with the same proportional frequency in which they occurred in the oral language of

children. Vocabulary difficulty, sentence length, specific subject-matter content were equated in the reading passages. The study showed that scores in the close comprehension tests were significantly better on reading passages made up of language structures frequently used in the oral language of children than on reading passages made up of language structures not frequently used in children's speech.

Another study reported by Ruddell supported the hypothesis that "paragraph meaning, sentence meaning and vocabulary achievement of first grade subjects at the end of grade one are a function of the control which subjects exhibit over designated aspects of their morphological language system and their syntactic language system."\(^{16}\)

Ruddell compared results of instruction of four types of reading programs, called Program B, Program P, and Program B+, and Program P+. The first two consisted of two published programs, the Sheldon Basal or Program B, and the Buchanan Programmed series, or Program P. The investigator developed two other programs called Program B+ and Program P+, by retaining the basic elements in Program B and Program P and supplementing each with materials and methods that stressed language structure in relation to meaning. The post-test results showed that only subjects in Program P+ which provided

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instruction in phoneme-grapheme correspondencies in vocabulary as well as stress in language structure in relation to meaning scored significantly higher in paragraph meaning and sentence meaning than subjects in Program P. Program B+ did not result in better scores in paragraph meaning and sentence meaning than Program B.

The present investigation focused attention on the number and kinds of sentence-combining transformations in a T-unit. This level of analysis was based on the principle that difficulty of reading material is a function of grammatical complexity in terms of the transformations and derivations operating on the basic structure. Several studies on reading comprehension applying the principles of transformational-generative grammar are related to the present study.

MacMahon tested the comprehension of sentences that were transformed into negative, passive and passive-negative. The subjects read each of the types of sentences and had to decide whether it was true or false. In another situation, the subjects evaluated sentences derived from basic patterns against pictured situations.

MacMahon found that negative sentences required more time to understand and evaluate than affirmative sentences. True affirmative sentences were easier to evaluate than false affirmative sentences.

MacMahon's experiments proved that understanding a sentence involves retracing a transform to its kernel and the time involved is a function of its grammatical complexity. But the study also showed that negativity and truth value introduce semantic and psychological factors which are likely to obscure the effect of grammatical complexity.

Slobin\(^{18}\) likewise showed that subjects must retrieve the kernels underlying grammatically-transformed sentences in order to understand them. It took longer for subjects to decide whether a passive-negative sentence was true or false with respect to a pictured situation than sentences which are less grammatically complex.

The subjects in Slobin's experiment were presented with pictures and spoken sentences. The sentences were of four grammatical types; namely: kernel, passive, negative, and negative-passive. The sentences were either true or false with respect to the picture and were either reversible in that the object could also serve as subject as in *dog chasing cat*, or non-reversible as in, *boy raking leaves*.

Slobin proved that syntactic complexity did not always predict the order of difficulty of sentences. Although grammatical theory indicates that passive is more difficult than negative, the response time for negative sentences was

longer. Non-reversibility made it clear which was the subject and the object of the sentence and facilitated comprehension. These findings showed that psychological and semantic factors can alter predictions of difficulty of sentences based on purely syntactic theory.

STUDIES ON TEACHING ENGLISH AS A SECOND LANGUAGE

The studies which have been cited involved subjects who speak English as a first language. The present investigation, however, is concerned with structural analysis of curriculum materials for Filipino children who are learning English as a second language. Similar studies on the reading comprehension of bilingual children are pertinent to the present investigation.

Reed\(^{19}\) tried to determine the effect of study of syntax and paragraph structure in reading comprehension of monolingual and bilingual children. The comprehension skills of the experimental group of 167 grade seven pupils which had a series of thirty reading lessons stressing syntactical units in sentences and paragraph structure as aid to comprehension were compared with that of the control group which had the regular textbook lessons.

\(^{19}\)Estella Reed, "An Investigation of the Relative Effect of the Study of Syntax and Paragraph Structure on Reading Comprehension of Monolingual and Bilingual Pupils in Grade Seven" (Unpublished Doctoral Dissertation, Indiana University 1966).
The results showed that bilingual pupils in the experimental group were superior in reading comprehension to those in the control group. Since there was no significant difference in the comprehension skills between monolingual pupils in the experimental and control group, this methodology is useful in teaching bilingual pupils to read.

Another study of McCane compared the basal reader approach, the TESL (Teaching English as a Second Language) approach and the language-experience approach to first grade reading instruction for children from Spanish-speaking homes. The basal reader approach consisted of using specially graded materials for sequential instruction in reading skills while the TESL approach consisted of aural-oral practice on words, phrases and sentences designed in sequence and utilizing the same words, phrases and sentences for initial reading and writing. The language experience approach used stories dictated or written by learners for instruction in all language arts skills, including reading.

The results showed that the basal reader approach was more effective in developing reading vocabulary and word study skills. In developing reading comprehension skill, the TESL approach and the basal reader approach were found to be superior. The language experience approach was least effective because of the difficulty of controlling the introduction of new sentence structures in a sequential manner.

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20 Roy McCane, "A Comparison of Three Approaches to First Grade English Reading Instruction for Children From Spanish Speaking Homes" (Unpublished Doctoral Dissertation, University of Denver, 1966).
Aguas' study which concluded that a contrastive analysis of Tagalog and English could provide a useful working hypothesis for the construction of language learning materials supported the assumption in the present investigation that the Teacher's Guide for English series was linguistically valid source of language samples. The choice and sequence of language structures in the Teacher's Guide for English series were derived from a contrastive analysis of Tagalog, the Filipino language, and English, the second language.

CHAPTER III

METHODS AND MATERIALS

The main purpose of this study was to analyze and compare the language structures in the curriculum materials for oral instruction with the language structures used in beginning reading materials for Filipino children who are learning English as a second language. The design and procedures used in the linguistic analysis were derived from principles based on modern linguistic science. The method integrated techniques developed by the school of modern structural linguistics in its focus on sequential patterns of structure and by theories of transformational-generative grammar which is concerned with deeper relationships. These techniques were adapted from earlier studies made on the language of elementary school children such as the works of Loban, Hunt, and O'Donnell.

METHODS OF LINGUISTIC ANALYSIS

The language samples were analyzed on two levels. As explained above, the first level analysis gives a description of the sequential pattern of the unit of expression. The second-level analysis is focused on deeper relationships within the unit of expression by describing constructions resulting from sentence-combining transformations in the basic structure.
The T-unit was used as basis for structural analysis and description. The "T-unit", abbreviated form for "minimal terminal syntactic unit" is a complete sentence. Hunt defined the T-unit as the "shortest grammatically allowable sentence into which language can be segmented."\(^1\) Loban referred to this unit of expression as the "communication unit" which is "a grammatically independent predication or an answer to a question that lacks only the repetition of the question element to satisfy the criterion of independent predication."\(^2\) A T-unit is a simple or a complex sentence, while a compound sentence consists of two or more T-units. For example, the sentence *The man is rich and the man bought a car* can be segmented into two T-units corresponding to the two independent clauses. The complex sentence, *The man who is rich bought a car* consists of only one T-unit corresponding to the independent clause plus the subordinate clause attached to it.

Earlier studies on the development of children's oral and written language have widely used the sentence as the unit of analysis. But linguistic studies have proved that the length of the T-unit, rather than the length of the sentence is a more valid index of linguistic maturity. T-units are lengthened with the consolidation of more subordinate clauses.


and phrases within the structure. This lengthening of the T-unit involves difficulty in producing and understanding the language. But one who has not acquired dexterity in handling structural relationships by reducing whole T-units to subordinate clauses and non-clausal structures may write long sentences by coordinating independent T-units with and's and but's.

Hunt's study suggested the use of T-unit as basis for analysis in determining readability levels. He indicated that grammatical complexity and comprehension difficulty resides within the T-unit. A T-unit which is packed with embedded sentences reduced to clauses, phrases and non-clausal modifiers through sentence-combining transformations, carries more information load and poses greater difficulty in comprehension than a longer sentence consisting of strings of independent clauses.

SEGMENTING AND CLASSIFYING THE LANGUAGE SAMPLES

The first step in the linguistic analysis was segmenting each language sample consisting of a punctuated sentence into T-units. The boundaries of each T-unit are clearly defined by well-known structural clues and grammatical relationships, including the essential elements: a subject-nominal, a finite verb or verb phrase and complements depending on the kind of verb. The grammatical relations existing within the T-unit are the "subject-verb relation, verb-object relation, modal-main verb relation, modifier-head relation and varied subordinate clause-main clause relations."³

³Hunt, op. cit., p. 67.
As defined earlier, a T-unit is a single independent predication together with any subordinate clauses attached to it. A simple or complex sentence consists of one T-unit while a compound sentence of two independent clauses consists of two T-units.

For purposes of this study, each segmented T-unit was classified into six categories as illustrated in Table I below:

TABLE I
T-UNITS CLASSIFIED INTO SIX CATEGORIES AND EXAMPLES FOR EACH CATEGORY

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Direct discourse with introductory clause of <em>saying</em> or <em>asking</em>.</td>
<td>&quot;I don't like that game,&quot; said Joan.</td>
</tr>
<tr>
<td>IA</td>
<td>Included in I, with the introductory clause deleted.</td>
<td>I don't like that game.</td>
</tr>
<tr>
<td>II</td>
<td>Direct dialog and narrative prose.</td>
<td>Mother wants me to clean the yard; &quot;or, One of the girls saw Elsa coming.</td>
</tr>
<tr>
<td>III</td>
<td>Partials with structural patterns derived from context.</td>
<td>Yes, I am.</td>
</tr>
<tr>
<td>IV</td>
<td>Social formulas: greetings and leave takings.</td>
<td>Hello, Joe.</td>
</tr>
<tr>
<td>V</td>
<td>Expressions which cannot be analyzed syntactically.</td>
<td>Clang! Clang!</td>
</tr>
</tbody>
</table>
Words representing sounds, noises and expressions which could not be syntactically analyzed were classified into one category and discarded from the data. But units of expression or partials whose structural pattern could be derived from context were part of the data which constituted a separate category.

Greetings and leave-takings, such as *Hello, Hi, Good-bye* were also treated as a special type of T-unit. The number of words of each T-unit was noted in the data but this type of T-unit was excluded in the linguistic analysis involving sequential patterns of structure. Social formulas are kinds of idiomatic expressions whose structural patterns could not be described on the basis of the scheme of linguistic analysis used in this study.

Direct discourse without the introductory clause containing the verb of *saying or asking* was classified in the same category as narrative prose. On the other hand, dialogs containing introductory clause of the verb of *saying or asking* were classified separately and further subdivided into Category I and Category IA.

In Category I, the quoted expression was regarded as a special type of noun clause functioning as direct object of the verb of *saying or asking* of the introductory clause. But since the quoted expression was actually a separate sentence with its own structural pattern, Category IA consisted of T-units segmented from the quoted expression. Thus two types of data
were considered in the first-level analysis describing the structural pattern of the T-unit. The first data included Category I with the quoted expression as a noun clause within a T-unit while the second data included the additional Category IA with the quoted expression as a separate T-unit.

It was believed necessary to consider the structural patterns of T-units in Category IA in order to present a more accurate description of the structural patterns that make up the oral and reading materials of Filipino pupils. But in the analysis of sentence-combining transformations, the general data excluded Category IA in order to avoid duplicating the kind and number of sentence-combining transformations, except in the accounting for noun clauses. Quoted expressions classified as noun clauses within Category I were treated separately as "pseudo-noun" clauses. In cases where the quoted expressions could be classified into other categories such as social formulas or expressions which cannot be analyzed syntactically, these quoted expressions were classified as such.

FIRST-LEVEL ANALYSIS: SEQUENTIAL PATTERN OF T-UNIT

Analysis of Basic Structures

After segmenting and assigning T-units into categories, the language samples were analyzed and classified into nine basic patterns as given in Table II.
<table>
<thead>
<tr>
<th>TABLE II</th>
<th>BASIC PATTERNS OF ENGLISH</th>
</tr>
</thead>
</table>

1. **Noun-Subject+Verb-Intransitive**

<table>
<thead>
<tr>
<th>Ns</th>
<th>VT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter</td>
<td>laughed.</td>
</tr>
<tr>
<td>His son</td>
<td>cried.</td>
</tr>
<tr>
<td>The other one</td>
<td>left.</td>
</tr>
<tr>
<td>Your horse</td>
<td>ran.</td>
</tr>
</tbody>
</table>

2. **Noun-Subject+Verb-Linking+Adjective (Predicate Adjective)**

<table>
<thead>
<tr>
<th>Ns</th>
<th>VL</th>
<th>Adj.p.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The meat</td>
<td>is</td>
<td>tough.</td>
</tr>
<tr>
<td>Crying</td>
<td>would be</td>
<td>useless.</td>
</tr>
<tr>
<td>Yours</td>
<td>sounds</td>
<td>funny.</td>
</tr>
<tr>
<td>You</td>
<td>have been</td>
<td>very nasty.</td>
</tr>
</tbody>
</table>

3. **Noun-Subject+Verb-Linking+Noun (Predicate Nominative)**

<table>
<thead>
<tr>
<th>Ns</th>
<th>VL</th>
<th>N.p.n.</th>
</tr>
</thead>
<tbody>
<tr>
<td>My name</td>
<td>is</td>
<td>Rosa.</td>
</tr>
<tr>
<td>Some of them</td>
<td>will be</td>
<td>great men.</td>
</tr>
<tr>
<td>They</td>
<td>have become</td>
<td>skilled engineers.</td>
</tr>
<tr>
<td>Those ladies</td>
<td>appear to be</td>
<td>nurses.</td>
</tr>
</tbody>
</table>

4. **Noun-Subject+Verb-Linking+Adverb (Location)**

<table>
<thead>
<tr>
<th>Ns</th>
<th>VL</th>
<th>Adv.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter</td>
<td>is</td>
<td>here.</td>
</tr>
<tr>
<td>My mother</td>
<td>will be</td>
<td>in the garden.</td>
</tr>
</tbody>
</table>

5. **Noun-Subject+Verb-Transitive+Noun-Direct Object**

<table>
<thead>
<tr>
<th>Ns</th>
<th>VT</th>
<th>N.d.o.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>like</td>
<td>mangoes.</td>
</tr>
<tr>
<td>My friends</td>
<td>saw</td>
<td>the last show.</td>
</tr>
<tr>
<td>Our neighbor</td>
<td>quit</td>
<td>his job.</td>
</tr>
<tr>
<td>The old lady</td>
<td>bought</td>
<td>several hats.</td>
</tr>
</tbody>
</table>

6. **Noun-Subject+Verb-Transitive+Noun - Indirect Object+Noun-Direct Object**

<table>
<thead>
<tr>
<th>Ns</th>
<th>VT</th>
<th>N.i.o.</th>
<th>N.d.o.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td>gave</td>
<td>her</td>
<td>a present.</td>
</tr>
<tr>
<td>I</td>
<td>am asking</td>
<td>you</td>
<td>a question.</td>
</tr>
<tr>
<td>The army</td>
<td>bought</td>
<td>the country</td>
<td>peace.</td>
</tr>
<tr>
<td>The war</td>
<td>has taught</td>
<td>us all</td>
<td>a lesson.</td>
</tr>
</tbody>
</table>

7. **Noun-Subject+Verb-Transitive+Noun-Direct Object+Noun-Objective Complement**

<table>
<thead>
<tr>
<th>Ns</th>
<th>VT</th>
<th>N.d.o.</th>
<th>N.o.c.</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>considered</td>
<td>Elmer</td>
<td>a fool.</td>
</tr>
<tr>
<td>Father</td>
<td>appointed</td>
<td>Mr.Diaz</td>
<td>section chief.</td>
</tr>
<tr>
<td>Mother</td>
<td>found</td>
<td>Mercedes</td>
<td>a great help around the house.</td>
</tr>
<tr>
<td>We all</td>
<td>thought</td>
<td>her</td>
<td>an excellent cook.</td>
</tr>
</tbody>
</table>

8. **Noun-Subject+Verb-Transitive+Noun-Direct Object+Adjective-Objective Complement**

<table>
<thead>
<tr>
<th>Ns</th>
<th>VT</th>
<th>N.d.o.</th>
<th>Adj.o.c.</th>
</tr>
</thead>
<tbody>
<tr>
<td>We</td>
<td>considered</td>
<td>Elmer</td>
<td>foolish.</td>
</tr>
<tr>
<td>The incident</td>
<td>made</td>
<td>Lisa</td>
<td>very unhappy.</td>
</tr>
<tr>
<td>The commander</td>
<td>believed</td>
<td>the situation</td>
<td>quite serious.</td>
</tr>
<tr>
<td>Mother</td>
<td>found</td>
<td>the weather</td>
<td>delightful.</td>
</tr>
</tbody>
</table>

9. **Expletive+Verb-Linking+Noun-Subject**

<table>
<thead>
<tr>
<th>Exp</th>
<th>VL</th>
<th>Ns</th>
</tr>
</thead>
<tbody>
<tr>
<td>There</td>
<td>was</td>
<td>a cake on the table.</td>
</tr>
<tr>
<td>There</td>
<td>are</td>
<td>a few chairs in that room.</td>
</tr>
<tr>
<td>There</td>
<td>s</td>
<td>a man here to see you.</td>
</tr>
<tr>
<td>There</td>
<td>were</td>
<td>a lot of people present.</td>
</tr>
</tbody>
</table>
Eight basic patterns were adapted from the Teacher's Guide for English in Grade I, from which series the "oral" samples were drawn. But for the purposes of this study, Basic pattern 4, Noun-Subject-Verb-Linking+Adverb (Location), adapted from Thomas was included as one of the basic patterns.

Rationale for the System of Classification

Since all the "oral" language samples drawn from the Teacher's Guide for English in Grade III were classified into eight basic patterns, it seemed logical to adapt this system in classifying samples from the Readers in order to establish consistency and comparability. It was also deemed necessary to include in this present study the basic pattern: Noun-Subject+Verb-Linking+Adverb (Location) in order to provide a basis for the system of classification of sentence-combining transformations which was adapted from Thomas. The basic pattern Noun-Subject+Verb-Linking+Adverb (Location) is the basis for deriving the nominalization noun+adverb where "predicate adverbs of location from a constituent sentence are introduced into a noun-modifying position in a matrix sentence." For example, the noun+adverb in the sentence, The frost on the pumpkin is lovely, is derived from a constituent sentence,

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5Thomas, Ibid., p. 95.
The frost is on the pumpkin, which illustrates Basic Pattern 4.

But in the Teacher's Guide for English in Grade I, the sentence, Peter is here illustrating the pattern Noun-Subject+Verb-Linking+Adverb (Location) is classified as Noun-Subject+Verb-Intransitive. It is believed that Thomas' classification adapted in this study is more precise than the classification in the Teacher's Guide for English in Grade I.

Analysis of Transformations

The next focus of the analysis was on the different types of transformations operating on the basic structures. The following types of transformations were considered:

A. Question Transformations
   1. "Yes-No" Questions
      Peter is laughing--------→Is Peter laughing?
   2. "Wh-" Interrogative as Subject
      Peter is laughing--------→Who is laughing?
   3. "Wh-" Interrogative Modifying the Subject
      Peter is laughing--------→Which boy is laughing?
   4. "Wh-" Interrogative Functioning as Adverbial
      Peter is laughing--------→Why is Peter laughing?

B. Derived Statement Transformations
   1. Passive
      He bought a gift--------→A gift was bought by him.

6Derived from the types discussed in the Appendix, Teacher's Guide for English in Grade I, pp. 393-399.
2. Negative

Marcial bought a TV set———>Marcial didn't buy a TV set.

3. Imperative

You please help me———>Please help me.

4. Emphatic

He helped me———>He did help me.

5. Interjection

She's a nice girl———>What a nice girl!

6. Partials

Yes, I play well———>Yes, I do.

With the analysis of the basic pattern and the transformations operating on the structure, a T-unit was classified as either a statement or a question. Statements were further subdivided into declarative statements and derived statements resulting from one or more of the passive, negative, imperative, emphatic, interjection, and partial types of transformations. Questions were either "Yes--No" or questions with interrogative words, otherwise called "Wh-" type. Thus a T-unit may be classified into one or more of the transformation types. For example, the language sample, Who isn't here? is a question transformation which is further converted into the negative.

The data on the analysis of the basic patterns and types of transformations operating on the structure of T-units were organized into the following:
I. Declarative Statements
(Simple or Complex)

II. Derived Statements
A. Passive
B. Negative
C. Imperative
D. Emphatic
E. Interjection
F. Partial

III. Questions
A. "Yes--No"
B. "Wh-" Question
   1) "Wh-" Interrogative as Subject
   2) "Wh-" Interrogative as Modifier of Subject
   3) "Wh-" Interrogative as Adverbial.

Other significant linguistic features related to the sequential pattern of the T-unit which were analyzed and compared were:

Word length of sentences
Word length of T-units
Mean number of T-units per sentence
Average number of subordinate clauses per T-unit.

SECOND-LEVEL ANALYSIS

Deeper analysis of structure was focused on the number, kinds and functions of constructions resulting from sentence-combining transformations within the T-unit. The average
number of sentence-combining transformations per sentence was determined. This analysis gave a more precise description of the complexity of the grammatical structure.

Sentence-combining transformation is the process of producing one sentence where otherwise there would have been two or more. One or more T-units or independent clauses are reduced into subordinate clauses or non-clausal structures and consolidated into the base sentence to produce a single grammatically interrelated T-unit. The resulting passage becomes succinct but structural relationships become more complex. More ideas are condensed into the grammatical unit.

It has been established that comprehension difficulty due to structural ambiguity increases with grammatical complexity. In getting the meaning of the passage "the reader gets to a point in the sentence where his first interpretation of the deep or surface structure is no longer plausible: the remainder of the sentence becomes unintelligible. He must pause and perhaps retrace his steps to establish a second revised interpretation; one which will carry him successfully through the remainder of the sentence."  

Kinds of Transformation-produced Constructions

In the second-level analysis, the system of classification of constructions derived from sentence-combining transformations was based on O'Donnell and Thomas.

Constructions resulting from sentence-combining transfor-

---

Hunt, op. cit., p. 152.
mations were classified into three general types: nominal constructions, adverbial constructions and coordinate constructions. Adjectival constructions were not classified separately since they became parts of nominal constructions. Constructions which modified adjectives were classified as adverbials while coordinate adjectives were classified as coordinate constructions.

Nominal constructions resulting from sentence-combining transformations were further classified according to kinds of construction based on structure and grammatical functions. For purposes of this research, constructions based on Owen Thomas' grammar were adapted in the system of classification. It was believed that this grammar, which is pedagogical in nature, would best serve the purposes of this kind of study which attempted to apply the theories of linguistic science to language teaching.

Examples of the kinds of constructions resulting from sentence-combining transformations are the following:

I. **Nominal Constructions**

A. Headed Constructions: Constructions in which the head can grammatically replace the whole construction:

1. **Noun+Noun**

   Matrix S:* My mother-in-law (+S)** likes roses.
   Insert S: My mother-in-law is a telephone operator.
   Derived S: My mother-in-law, a telephone operator, likes roses.

---

*Sentence

**The process of incorporating an optional sentence after every nominal in the grammar as maintained by transformationalists.
2. Noun+Adjective
   Matrix S: God (+S) created the world (+S).
   Insert S: God is invisible.
   The world is visible.
   Derived S: Invisible God created the visible world.

   Matrix S: He bought a car (+S).
   Insert S: The car is green.
   Derived S: He bought a green car.

3. Noun+Adverb
   Matrix S: We were very fond of the people (+S).
   Insert S: The people were upstairs.
   Derived S: We were very fond of the people upstairs.

   Matrix S: The frost (+S) is lovely.
   Insert S: The frost is on the pumpkin.
   Derived S: The frost on the pumpkin is lovely.

5. Noun+Possessive
   Matrix S: I bought a car (+S).
   Insert S: John has a car.
   Derived S: I bought John's car.

   Matrix S: I bought a car (+S).
   Insert S: He has a car.
   Derived S: I bought his car.

   Matrix S: John took the book (+S).
   Insert S: I have a book.
   Derived S: John took my book.
   John took mine.
6. Noun+Relative Clause
Matrix S: The man (+S) came from Calcutta.
Insert S: The man likes balloons.
Derived S: The man who likes balloons came from Calcutta.

7. Noun+\(\_\)Relative Clause (that is deleted)
Matrix S: He met the girl (+S).
Insert S: John spoke to the girl last week.
Derived S: He met the girl John spoke to last week.

8. Noun+Infinitive
Matrix S: John saved some money.
Insert S: He went to the university.
Derived S: John saved some money (for him) to go to the university.

Matrix S: They made him a fire engine.
Insert S: The child rode in the fire engine all day.
Derived S: They made him a fire engine (for him) to ride in all day.

9. Noun+Participle
Matrix S: I spoke to the man (+S).
Insert S: The man is sweeping the stairs.
Derived S: I spoke to the man sweeping the stairs.

B. Non-Headed Constructions: Constructions that function syntactically as whole but cannot be grammatically replaced by a single word in the construction:

1. Noun Clause
Factive Nominal
Matrix S: SOMETHING seems obvious.
Insert S: She is lovely.
Derived S: That she is lovely seems obvious.
2. Gerund
Matrix S:  *SOMETHING* was the high point of the evening.
Insert S:  John sings "Celeste Aida" magnificently.
Derived S:  The magnificent singing of "Celeste Aida" was the high point of the evening.
        John's singing of "Celeste Aida" was the high point of the evening.

3. Infinitive
Matrix S:  *SOMETHING* is unusual.
Insert S:  I study hard.
Derived S:  For me to study hard is unusual.

4. Infinitive with Subject
Matrix S:  They considered John *SOMETHING*.
Insert S:  John is lazy.
Derived S:  They considered John (to be) lazy.

5. Prepositional Phrase
Matrix S:  We put the tent.
Insert S:  The tent is up.
Derived S:  We put the tent up.

II. Adverbial Structures: (Clauses and Near-Clauses)

1. Time
Matrix S:  He left in the morning.
Insert S:  I came in the morning.
Derived S:  He left when I came.
2. Place

Matrix S: I study in the library.
Insert S: He works in the library.
Derived S: I study where he works.

3. Cause

Matrix S: I left.
Insert S: He came.
Derived S: I left because he came.

4. Condition

Matrix S: I left.
Insert S: He came.
Derived S: He came even if I left.

5. Comparison

Matrix S: Mary is (comparative +S) tall.
Insert S: Harry is tall.
Derived S: Mary is less tall than Harry.

(Reduced Comparison)
Matrix S: Ron is tall.
Insert S: John is tall.
Derived S: Ron is (Comparative +S) tall.
Ron is as tall as John.

6. Complement to Adjective

Matrix S: I am glad.
Insert S: You can come.
Derived S: I am glad you can come.

7. Adverbial Infinitive

Matrix S: He came home.
Insert S: He visited us.
Derived S: He came home to visit us.
8. Sentence Modifiers

Matrix S: Todd had plenty of time.
Insert S: It was fortunate.
Derived S: Fortunately, Todd had plenty of time.

Matrix S: They played bridge.
Insert S: It happened in the meantime.
Derived S: In the meantime, they played bridge.

III. Coordinate Structures

1. Nominals
   John quarrelled.
   Edna quarrelled.
   John and Edna quarrelled.

2. Predicates
   John fished.
   John loafed.
   John sat in the sun.
   John fished, loafed and sat in the sun.

3. Modifiers
   A young man came in.
   The young man was nice.
   A nice young man came in.

GRAMMATICAL FUNCTIONS OF NOMINAL CONSTRUCTIONS

The system of classification of grammatical functions of constructions was based on the positional classes used to fill in slots in the basic sentence patterns in the Teacher's Guide for English in Grade 1. A construction occupying a slot

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in the sentence reserved for certain positional classes performs the function of that class. For example, in the sentence, *To err is human*, the nominalized construction, *To err*, which occupies the position reserved for subject, performs the function of the subject of the structure. Objective and workable criteria for testing positional classes in the basic sentence pattern discussed in the Teacher's Guide for English in Grade I were used extensively in the process of analysis. In certain few cases of structural ambiguity where constructions could not be labelled on the basis of transformational grammar, classification and analysis were based on Jespersen's Modern English Grammar, Poutsma's A Grammar of Late Modern English, and Visser's Historical Syntax of The English Language. Classifications were further verified by a specialist in transformational analysis.

The grammatical functions of nominal constructions which were identified in the sentences were:

1. Subject
2. Direct Object
3. Object of Preposition

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10 H. Poutsma, A Grammar of Late Modern English (Groningen: P. Noordhoof, 1916).


12 Dr. Fred Bowers of The Department of English, University of British Columbia.
4. Indirect Object
5. Subjective Complement
6. Objective Complement
7. Appositive

EXAMPLE OF AN ANALYSIS OF A T-UNIT

Below is a step-by-step procedure in segmenting and analyzing a T-unit:

A - T-UNIT I

Sample - Sentence No. 8, page 156, *Fun at Home and Away*.

Text - "Here's what you have earned today, Laura," said Nita's mother as she gave Laura fifty centavos.

| No. of Words in Sentence | 17 |
| No. of Words in Unit | 17 |
| No. of T-Unit | 1 |
| No. of Clauses | 4 |
| Noun Clause | 2 |
| Adverb Clause | 1 |
| Type of T-Unit | 1 |
| Structural Pattern of T-Unit | Ns-VT-Ndo. |

Number and Kinds of
Sentence-combining Transformations - page 47.
Nominalization

<table>
<thead>
<tr>
<th>Kind</th>
<th>Function</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun+Possessive</td>
<td>Subject</td>
<td>Nita's mother.</td>
</tr>
<tr>
<td>Noun+Noun</td>
<td>Nominative of Address</td>
<td>you, Laura.</td>
</tr>
<tr>
<td>Noun Clause</td>
<td>Direct Object</td>
<td>&quot;Here's what you have earned today, Laura.&quot;</td>
</tr>
<tr>
<td>Noun Clause</td>
<td>Subject of Subordinate</td>
<td>&quot;What you have earned today, Laura.&quot;</td>
</tr>
<tr>
<td></td>
<td>Clause</td>
<td></td>
</tr>
</tbody>
</table>

Adverbial Structure

Adverbial Clause of Time - as she gave Laura fifty centavos.

B - T-UNIT IA

Text: "Here's what you have earned today, Laura."

No. of Words in T-Unit - 8
No. of T-Units - 1
No. of Clauses - 2
Noun Clause - 1
Type of T-Unit - IA

Structural Pattern of T-Unit - Ns-VL-ADV (location)

Number and Kinds of Sentence-Combining Transformations - below

Nominalization

<table>
<thead>
<tr>
<th>Kind</th>
<th>Function</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun+Noun</td>
<td>Nominative of Address</td>
<td>you, Laura,</td>
</tr>
<tr>
<td>Noun Clause</td>
<td>Subject</td>
<td>&quot;What you have earned today, Laura.&quot;</td>
</tr>
</tbody>
</table>
CURRICULUM MATERIALS BASIC TO THE STUDY

Teacher's Guide for English

Language samples taught for oral mastery were drawn from the Teacher's Guide for English in Grade III which will be referred to as Guide throughout the text in this study. This curriculum material is part of a series which consists of teachers' guides, pupils' textbooks and workbooks for the teaching of English as a second language in Philippine schools, and which was developed by specialists in linguistics and language teaching at the Philippine Center for Language Study as a project of the University of California (Los Angeles) Philippine Government Language Program. This cooperative undertaking of the University of California at Los Angeles and the Philippine government, with the financial support of the Rockefeller Foundation, carried out a program for the improvement of English instruction through research and experimentation on various aspects of the language problem in the Philippines. The duration of the program was for a period of eight years, from 1957 to 1966.

The linguistic soundness of the Teacher's Guide for English series as valid bases for developing beginning reading materials in English for pupils in the Philippines, is supported by authorities in the English-teaching profession. The review on the Teacher Guide for English in Grade I in English Language Teaching commends the high quality of the instructional material.
This book is an impressive example of what cooperation among teachers, administrators, linguists, and teacher-trainers can achieve. Nothing, one feels, is left to chance in this tightly padded, closely integrated volume. The work reflects sound linguistic and pedagogic principles; material is analyzed and graded; meticulous detail marks every stage and every stage is reinforced by background information for the teacher.

The division of the year's work into five units which represent important areas of experience in the lives of first grade children is realistic . . . but not only do they have an appropriately local bias, but the situational material providing the necessary close links with the children's daily life is considerably richer than is commonly found. 13

Albert Marckwardt, past president of the National Council of Teachers of English refers favorably to the materials and to the Philippine program as a whole:

We are now acquiring valuable experience in developing materials and training teachers of English as a second language throughout the world. One of our most notable efforts has been in the Philippines where the University of California, with Rockefeller Foundation's support, has undertaken an ambitious program and has executed it ably. Elementary school textbooks have been developed, teachers have been trained. . . . 14

An evaluation report published in Language Learning also states that "The Center has to its credit an excellent six-volume series for the teaching of English in elementary schools." 15


Contrastive Analysis as Basis for Choice of Language Structures

One of the research projects of the Philippines-University of California (Los Angeles) Language Program provided the basic guidelines for curriculum writers in the choice and sequencing of language structures in the Teacher's Guide for English series. This study involved the alignment of the structural systems of the two languages to determine their points of contrast and similarity. A hierarchy of difficulty was evolved which identified language structures that posed learning problems for Filipino speakers of English. Charles Fries states that "the most effective materials are those that are based upon scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner."  

The validity of the choice and sequencing of language structures in the Teacher's Guide for English in Grade I is further stressed in English Language Teaching:


Here, it seems, is an answer to the often postulated dilemma: should one provide the material and the techniques within a course, or should the responsibility for selection remain with the teacher? This American approach implies quite clearly that the selection of both methods and materials is more complex than can reasonably be left to the individual. Equally, there is no reduction of the teacher's responsibility, for the standard of professional attainment necessary for the teaching of the course is high. This is teacher-training in depth.  

The Basal Readers

The language samples in reading were drawn from the authorized basal readers, *We Work and Play* (Transition Reader), First Reader, Level I, Grade Three, and *Fun At Home and Away*, First Reader, Level II. These books will be referred to as *Readers* throughout the text in this study.

*Readers* are the first formal reading materials in English of pupils in the Philippine public schools. These *Readers* were produced by a team of curriculum writers in the Bureau of Public Schools. The texts also acknowledge the assistance extended by Dr. Clifford N. Prator, then Project Supervisor of the Philippine-University of California (Los Angeles) Language Program for "offering valuable suggestions as to the language of the books"; and Dr. Bernice Leary, at the time Technical Assistant On Textbooks Preparation assigned to the Bureau of Public Schools, Manila, under the sponsorship of the Agency for International Development of the United States government.

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18 *English Language Teaching*, op. cit., p. 100.
Each reader contains a vocabulary analysis. The vocabulary analysis gives an accounting of words in the Readers including those which have previously been learned in earlier grades in speaking and listening activities, and new words which are introduced. No similar information is given on the language structures used in the Readers.

RATIONALE AND PROCEDURE FOR SAMPLING

A complete analysis of all sentences in the Guide and in the Readers was not feasible. But according to valid statistical procedures, a well-chosen sample can provide almost as much information as the "whole" population at much less cost and often more accurately, since possibilities of error are greater with too large samples. The sampling procedure devised in this research was believed to draw language samples representative of the whole text.

All of the sentences in the oral presentation material of each lesson in the Teacher's Guide for English in Grade III were used as language samples representative of the language structures which were taught for oral mastery. These sentences which are used in realistic meaningful context in dialogs, interviews, and rhymes, illustrate the language structures to be mastered for each lesson. These same sentences are intended as springboards for reading and writing activities in each language lesson.

Although the pupil in Philippine schools begins formal reading only in grade three, his oral English repertoire which
would serve as basis for reading is acquired from grades one through grade three. Using the Teacher's Guide for English in Grade I and the Teacher's Guide for English in Grade II, the pupil is introduced to the basic sounds and patterns in English through purely aural-oral activities in the regular classroom period. But for the major purpose of comparing the Guide with the Readers, sampling was confined to the sentences in the Teacher's Guide for English in Grade III. It was believed that the sentences in the oral presentation material for each lesson in grade three were representative samples of the basic structures and sentence-combining transformations which the pupil has acquired cumulatively from grade one through grade three, "since most of the structures in grade three are review materials and the new ones are variations, transformations, expansions or combinations of the basic patterns taught in previous grades."\(^{19}\)

A 10 per cent sampling of the pages in the basal readers was made by analyzing the sentences in the first page of the text and every tenth page thereafter. Only full pages were considered. A page that was predominantly illustrated was omitted and the next page which was not predominantly illustrated was used. It was assumed that by this method of sampling, the findings would be indicative of the whole text and would also reveal any scheme of gradual development of complexity of structures in each text.

\(^{19}\) Teacher's Guide for English in Grade III, p. lx.
CHAPTER IV

ANALYSIS OF DATA

The methodology described in the preceding chapter sought to compare the significant features of the patterns of structure of the language samples drawn from beginning reading materials with the language samples for oral mastery from the Teacher's Guide for English in Grade III. This report on the findings of the linguistic analysis will consist of two main parts. The first part will present the data obtained from the first-level analysis which was mainly concerned with the sequential pattern of the T-unit and other related features. The following will be considered:

1. Word length of sentences
2. Word length of T-units
3. Mean number of T-units per sentence
4. Average number of subordinate clauses per T-unit
5. Sequential patterns of T-units

The next part will describe the results of the second-level analysis which was focused on deeper relationships in terms of sentence-combining transformations. The data to be presented will include:

1. Average number of sentence-combining transformations per T-unit
2. Kinds of sentence-combining transformations
3. Functions of nominal constructions formed by sentence-combining transformations.

GARBLES

After segmenting the language samples into identifiable units and classifying them into Categories I to VI, as explained earlier in Table I, all segments classified as Category VI were discarded. These segments were mainly words representing noises or human and animal sounds which could not be syntactically analyzed. The term "garble", which was used by Hunt, corresponds to "mazes" as used by Loban and Strickland.

The mazes or garbles in the previous studies of these authors were signals of pauses, hesitations or revisions resulting in structural tangles in the oral and written language of children. These language samples were elicited and transcribed in actual communication situations. Since the language samples in this study were "edited" written passages from authorized curriculum materials, rather than actual oral speech, such kinds of garbles resulting from structural tangles were not found. The "garbles" in these samples served a specific purpose in making the language more alive and more interesting to the children. Examples of such garbles are expressions representing the barking of a dog, Arf! Arf! Arf!, the ringing of a bell, Clang! Clang! Clang!, the sound made by a man pulling the reins of a horse, Hya! Hya!, or a child shouting Wow! to express surprise and delight. There were twenty-four garbles excluded from the data.
The first-level analysis was focused on the sequential pattern of the T-unit. This was described in terms of the basic structure or the derived structure resulting from transformations. The analysis also included the word-length of the sentence, the word-length of the T-unit, and the factors related to the lengthening of the units of expression; namely, subordinate clauses and the number of T-units per sentence.

**Sentence-Length in Relation to T-Unit Length**

Although the T-unit was the basis of syntactic analysis and measurement in this study, the word-length of the sentence was considered in the analysis of data in relation to the word-length of the T-unit. The two factors that influence sentence-length are T-unit length and the number of T-units per sentence.

The T-unit lengthens with corresponding lengthening of the sentence, as more subordinate clauses and phrases are consolidated within the basic structure. This process results in grammatical complexity. Another way of lengthening a sentence is increasing the number of T-units, although it has been shown that this relative lengthening does not indicate relative complexity of structure. For example, the one T-unit sentence, *The child is happy* becomes longer with the consolidation of a subordinate clause within the structure as in *The child who*
laughs is happy. On the other hand, the same sentence, *The child is happy* is lengthened with the increase in the number of T-units as in *The child is happy and the child laughs*.

Sentence length in itself is a poor index of linguistic maturity since a sentence may derive its length from the number of T-units as well as from the length of the T-units. But the findings in this study as shown in Table III reveal that the sentences in the language samples derived their length from the length of the T-units, rather than from the number of T-units per sentence.

### TABLE III

**SENTENCE LENGTH FACTORS: T-UNIT LENGTH AND NUMBER OF T-UNITS PER SENTENCE IN THE GUIDE COMPARED WITH THE READERS**

<table>
<thead>
<tr>
<th></th>
<th>Mean T-unit Length in Words</th>
<th>Mean No. of T-units per Sentence</th>
<th>Mean Sentence Length in Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide</td>
<td>6.59</td>
<td>x 1.08</td>
<td>7.06</td>
</tr>
<tr>
<td>Readers</td>
<td>7.94</td>
<td>x 1.02</td>
<td>8.21</td>
</tr>
</tbody>
</table>

Both the mean sentence length and the mean T-unit length in the **Readers** were greater than that in the **Guide**. The difference in sentence length was 1.15 words while the difference in mean T-unit length was 1.34. However, there were more T-units for every sentence in the **Guide** than in **Readers**. The average number of T-units per sentence in the **Guide** was 1.08 compared with 1.02 T-units in the **Readers**.
The data in Table III show precisely how sentence length is derived from T-unit length and number of T-units per sentence. In the Guide, mean T-unit length of 6.59 multiplied by mean number of T-units per sentence of 1.08 gives the mean sentence length of 7.06. In the case of the Readers, mean T-unit length of 7.94 multiplied by mean number of T-units per sentence of 1.02 equals the mean number of words per sentence of 8.21.

Since the samples on which the means were based were very large, there was little sampling error and the samples could be taken to represent the population values very closely. The difference between the means was found to be significant beyond the .0001 level.

Distribution of Short, Middle-Length and Long T-units

Figure 1 compares the distribution of T-units in the Readers and in the Guide according to the number of words that they contain. Earlier studies have referred to T-units of one to eight words as "short", of nine to twenty words as "middle-length", and of twenty words and above as "long". In terms of this classification we see in Table IV that almost 75 per cent of the T-units in the Guide were "short" compared to 63 per cent in the Readers. All the rest of the 25 per cent in the Guide are "middle-length" compared to 36.5 per cent in the Readers.
NUMBER OF T-UNITS OF EACH LENGTH IN THE
GUIDE COMPARED TO THE READERS

FIGURE 1
### TABLE IV

**DISTRIBUTION OF "SHORT", "MIDDLE-LENGTH" AND "LONG" T-UNITS IN THE GUIDE AND IN THE READERS**

<table>
<thead>
<tr>
<th>Words</th>
<th>Guide</th>
<th>Readers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Per Cent</td>
</tr>
<tr>
<td>Short</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-word</td>
<td>9</td>
<td>2.08</td>
</tr>
<tr>
<td>2-word</td>
<td>23</td>
<td>5.49</td>
</tr>
<tr>
<td>3-word</td>
<td>30</td>
<td>6.94</td>
</tr>
<tr>
<td>4-word</td>
<td>60</td>
<td>13.88</td>
</tr>
<tr>
<td>5-word</td>
<td>47</td>
<td>10.87</td>
</tr>
<tr>
<td>6-word</td>
<td>63</td>
<td>14.58</td>
</tr>
<tr>
<td>7-word</td>
<td>54</td>
<td>12.50</td>
</tr>
<tr>
<td>8-word</td>
<td>37</td>
<td>8.56</td>
</tr>
<tr>
<td>Middle-Length</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-word</td>
<td>39</td>
<td>9.02</td>
</tr>
<tr>
<td>10-word</td>
<td>31</td>
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<td>11-word</td>
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<td>20-word</td>
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<td>0.00</td>
</tr>
<tr>
<td>Long</td>
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<td></td>
</tr>
<tr>
<td>21-word</td>
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<td>0.00</td>
</tr>
</tbody>
</table>

The longest in the Guide is an 18-word T-unit which is a health rhyme for children:

An A-I child has: Good teeth, clear skin, good height, and weight, clear eyes and a good appetite.

The unusual length of the T-unit is due to the unusual number of coordinated nominals in a series.
The three longest T-units in the Readers were 21 words long. These sentences were direct discourse with introductory clauses containing the verbs of saying. One of the sentences on page 157 in Fun At Home and Away is the following: "I hope I can find the biggest tree in the woods," said the man as he walked along with his axe. There are four clauses in the sentence: two independent and two dependent clauses. The introductory clause is expanded by an adverbial clause. A noun clause is embedded in another noun clause used as direct object of the verb of saying.

To test whether the language samples from the Guide and from the Readers have been drawn from the same population, the Kolmogorov-Smirnov two sample test was used. The test revealed that the two sample cumulative distributions were so far apart that it was virtually certain the two samples come from different populations. The observed D was much larger than the computed value required for rejection of the null hypothesis at the .0002 level.

Number of Subordinate Clauses

It has been noted in the earlier sections that the major factor in lengthening the T-unit is the increase in the number of subordinate clauses attached to it. Subordination decreases the number of T-units in the sentence, where an independent clause becomes a dependent clause. For example, the two T-unit sentence, The man bought a car and the man is rich is reduced to a one T-unit sentence, The man who is rich bought a car,
with corresponding lengthening of the T-unit. The subordination process also results in embedding a T-unit within another T-unit.

The data that have been presented showed that the mean T-unit length in the Readers was longer than in the Guide. The difference of 1.34 words was found to be highly significant. Analysis and comparison of the distribution of subordinate clauses among multi-clause T-units would account for the difference in T-unit length.

Figure 2 shows the distribution of subordinate clauses among the multi-clause T-units in the Readers and the Guide. The greater number of T-units in the Guide, consisting of 85 per cent were one clause T-units, while in the Readers, only 57 per cent were T-units of one clause. There were relatively more multi-clause T-units in the Readers than in the Guide.

T-units in the Readers were expanded or lengthened through subordinate clauses added to the main clause. This greater frequency of subordinate clauses resulted in longer T-units and in the smaller mean number of T-units per sentence in the Readers compared to the Guide. A subordinate clause was added to the main clause 50 per cent of the time in the Readers, while in the Guide a subordinate clause was added to the main clause 15 per cent of the time.

It has to be noted, however, that the high average number of subordinate clauses for every main clause in the Readers was due to the great number of dialogs in the samples.
PERCENTAGE OF T-UNITS WITH ONE, TWO, THREE OR FOUR CLAUSES IN THE GUIDE COMPARED TO THE READERS

FIGURE 2
In the Guide, there were only two dialogs in the samples. In this type of T0unit, the quoted expression was classified as noun clause functioning as direct object of the verb of saying or asking in the introductory clause. If this type of "pseudo-noun" clause was excluded from the data by subtracting 217 T-units in Category I from 311, the total number of subordinate clauses, the average number of subordinate clauses for every main clause in the Readers would be .20. This is much less than .50, the average number of subordinate clauses for every main clause with the inclusion of quoted expressions functioning as noun clauses.

Types of Discourse in Readers and Guide

The difference in the mean length of the T-units in the Guide and in the Readers may be explained by the difference in the types of discourse of the passage from which the samples were derived. Although the language in the Guide are written forms, these units of expression which pupils learning English as a second language are expected to master orally approximate more closely, oral discourse than the language in the Readers. These language forms are presented in the context of situations which call for oral communication such as dialogs and interviews.

The aim of the language lesson in the Guide is to help the learner acquire authentic forms of the oral language. A large number of the language expressions in the Guide are written forms of utterances in informal conversational style such as
partials, short answers, and reduced questions.

While expressions in the Guide approximate forms of oral discourse, the reading passages are narrative prose which consist largely of dialogs or direct discourse. The T-units are longer with introductory clauses containing the verb of saying or asking added to the quoted expression. Dialogs have been commonly used in the basal readers to add naturalness of expression in the reading passages.

SEQUENTIAL PATTERN OF THE T-UNIT

The preceding sections have analyzed and compared the data describing the length of the T-unit and other linguistic features related to the unit of communication as a whole. This section will describe the sequential pattern of the T-unit according to the underlying basic structure of the main clause. Findings in the analysis of language samples from the Readers and the Guide were compared to determine their degree of similarity.

The underlying structures of all English sentences can be reduced to a few basic patterns or kernels. Variations from basic patterns are the result of the process of transformation operating on these basic patterns. Variations from the basic patterns due to the process of transformation take the form of expansion, reordering, addition, deletion or substitution of the functional elements in the pattern. An element is expanded when words, phrases or clauses are added to a word in
the pattern in order to limit, describe or qualify it. This is illustrated in the sentence, *The man who is rich bought an expensive car* where the clause *who is rich* and the modifier *expensive* expand the subject *man* and the direct object *car.* Reordering of verb and subject in the sentence *Peter is here* results in the question, *Is Peter here?* In the passive and negative transformations, as in *John drives the car to The car wasn't driven by John,* new elements are added. Substitution of the interrogative word for some element in the basic structure transforms a statement to a "Who" question as in *John was here to Who was here?*

It has been shown that in the process of understanding a sentence, the reader has to relate the outer or modified structure to the deep or basic structure. Studies based on the application of linguistic theory to reading comprehension have proved that understanding a sentence involves retrieving it from its derived to its basic form. Thus, in understanding the passive sentence, *The cat was chased,* the reader has to recode the structure to its basic form of *SOMEONE (Subject) chased the cat,* where the deep subject has to be supplied and the subject is reverted to its true position or function as deep object. Research studies have further indicated that the ease or difficulty in comprehending a passage depends on the distance of the outer or surface structure from its basic structure in terms of modifications due to transformation.

To insure rapid progress in learning how to read in a second language situation, close correspondence should be
maintained between the basic and transformation structures learned in oral language lessons and those used in beginning reading materials. This analysis will show the extent to which the structures of the language samples from the Readers are based on the structures of the samples drawn from the Guide.

Frequency of Basic Patterns in Declarative Statements

Findings on the frequency of occurrence of basic patterns in declarative statements is shown in Table V which included data with quoted expressions as separate T-units. Frequency of use of the underlying basic statement patterns in both the Readers and the Guide centered around three basic patterns. The three ranking patterns, namely the following:

Rank 1 - Noun-Subject+Verb-Transitive+Noun-Direct Object
Rank 2 - Noun-Subject+Verb-Intransitive
Rank 3 - Noun-Subject+Verb-Linking+Adjective

were the same in both the Readers and the Guide. Table V also shows that the most popular pattern was the common doer--action--goal sequence or the Noun-Subject+Verb-Transitive+Noun-Direct Object which accounted for 68 per cent in the reading materials and 40.65 per cent in the oral language materials. The data further revealed that the basic patterns with the objective complements: Noun-Subject+Verb-Transitive+Noun-Direct Object+Noun-Objective Complement and Noun-Subject+Verb-Transitive+Noun-Direct Object+Adjective-Objective Complement were rarely used in the curriculum materials. The pattern with the expletive, There is+Subject also occurred very rarely,
In the Readers, the great mass of T-units or 68 per cent clustered around only the highest ranking pattern, while the patterns Noun-Subject+Verb-Intransitive, Noun-Subject-Verb Linking+Adjective and Noun-Subject+Verb-Transitive+Noun-Indirect Object+Noun-Direct Object accounted for only the next 25 per cent. One striking disparity in the distribution of patterns was the relatively more frequent occurrence of the indirect object pattern in the Readers, than in the Guide.

TABLE V
FREQUENCY, PER CENT AND RANK OF BASIC PATTERNS IN DECLARATIVE STATEMENTS INCLUDING QUOTED EXPRESSIONS IN THE GUIDE AND IN THE READERS

<table>
<thead>
<tr>
<th>Basic Pattern</th>
<th>Guide FreQUENCY</th>
<th>Guide Per CENT</th>
<th>Guide Rank</th>
<th>Readers FreQUENCY</th>
<th>Readers Per CENT</th>
<th>Readers Rank</th>
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<td>3</td>
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</table>

Table VI presents data on the frequency of occurrence of basic patterns in declarative statements excluding Category IA, or quoted expressions as separate T-units. As in the
### Table VI

FREQUENCY, PER CENT AND RANK OF BASIC PATTERNS IN DECLARATIVE STATEMENTS EXCLUDING QUOTED EXPRESSIONS IN THE GUIDE AND IN THE READERS

<table>
<thead>
<tr>
<th>Basic Pattern</th>
<th>Guide</th>
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<th>Readers</th>
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<tbody>
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<td></td>
<td>Frequency</td>
<td>Per Cent</td>
<td>Rank</td>
<td>Frequency</td>
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</tr>
<tr>
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<td>4.00</td>
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<td>6.5</td>
<td>3.00</td>
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</tbody>
</table>

First data presented, the pattern *Noun-Subject+Verb-Transitive+Noun-Direct Object* has the highest frequency of occurrence in Table VI. As was expected however, the relative proportion of frequency of this pattern increased from 68 per cent to 72.5 per cent. With the exclusion of Category IA in the data, all the dialogs with the introductory clause or Category I have the *Noun-Subject+Verb-Transitive+Noun-Direct Object* pattern with the quoted expression as direct object.

Table V indicates, as does Table VI, that the occurrence of the basic patterns consisted of the repetition of only a few of the basic patterns.

The data on the frequency of occurrence of the basic patterns confirmed the results of previous studies which deter-
mined the most frequent and rarely used patterns of English in both oral and written materials. Strickland found that the common pattern of highest frequency in oral speech of children in reading textbooks was the *Noun-Subject+Verb-Transitive+Noun-Direct Object* pattern. Loban confirmed this data, and O'Donnell also reported that the direct object pattern and the *Noun-Subject+Verb-Intransitive* accounted for 80 per cent to 85 per cent in the speech and writing of children. All studies reported that the patterns with the objective complement and indirect objects were rarely found in the language samples. Compared with the reports of previous studies of Loban, Strickland and O'Donnell, the rank of five among the basic patterns in frequency of occurrence of the *Noun-Subject+Verb-Transitive+Noun-Indirect Object+Noun-Direct Object* pattern was comparatively higher. The *Expletive-There is+Noun-Subject* pattern was also reported as a rare pattern in English.

In order to determine the degree of relationship of frequency of occurrence of the underlying basic patterns in the *Guide* and in the *Readers*, the correlation coefficient of the paired data was computed using Spearman's rank correlation coefficient, (or rho). The correlation coefficient of .92 of the paired measurements in Table V indicates a high positive relationship in the ranks based on the frequency of occurrence of the underlying basic statement patterns in the *Guide* and in the *Readers*. In Table VI, the degree of relationship of the ranks based on frequency of occurrence of the basic patterns in
the Guide and in the Readers is lower with a rank correlation coefficient of .88. This difference between Table V and Table VI is due to the fluctuation in rank of the three rarely used patterns.

The rank correlation coefficients indicated a high degree of similarity that exists between the underlying basic statement patterns taught to Filipino pupils in oral language lessons and basic patterns used in beginning reading materials. A one tailed-test based on N equals 9 indicated that the values of the rank correlation coefficients were highly significant at the .01 level.¹

**Types of Questions**

The questions in the language samples were classified into two types, namely: "Yes-No" questions and questions with interrogative words who, where, when, what, called "Wh-" question patterns. The "Wh-" type was further subdivided into three subtypes, namely "Wh-" as subject, as in the sentence Who is here?; "Wh-" as modifier of the subject as in Which book is good?, and "Wh-" as adverbial, as in Why did Peter laugh?

The total number of questions in the Guide was proportionately greater by 100 per cent than the number of questions in the Readers. Question patterns represented 18 per cent of

all the language samples from the Guide, while in the Readers, only 9 per cent were questions. In the Guide, there were relatively more "Yes--No" questions, while in the Readers, there were relatively more questions with the interrogative words.

Figure 3 shows the relative frequency of the types of questions in the Guide and in the Readers. The question in which the interrogative word was used as adverbial was more commonly used in both the Readers and the Guide. The question with the interrogative word as modifier of the subject was not used in both the Readers and Guide.

Analysis of the other types of transformations in questions showed that more questions in the Guide were further converted by other types of transformations. The most popular type of transformation was the negative. Most of the negative questions in the Guide were further reduced into partials. The passive question was not found in the Guide, while only one passive "Yes--No" question occurred in the Readers.

It seemed that the relatively greater frequency of the question in the Guide than in the Readers was indicative of the informal conversational style of the language of the Guide. Other transformations on the question were largely those which resulted in making the language approximate oral speech such as reducing questions into partials as in the tag questions: \textit{Isn't he? Didn't he?}, etc.
FREQUENCY OF QUESTION SENTENCE TYPES IN THE
GUIDE COMPARED TO THE READERS

FIGURE 3
Frequency of Underlying Basic Patterns in Questions

Table VII presents data on the frequency of the underlying basic patterns in questions including quoted expressions. The greater number of questions in the language samples were derived from the Noun-Subject+Verb-Transitive+Noun-Direct Object pattern. This pattern, which represented 44.87 per cent in Guide and 46.47 per cent in Readers ranked first in frequency of occurrence in both the Readers and the Guide. The pattern which ranked second in both materials was the Noun-Subject+Verb-Linking+Noun-Predicate Nominative.

<table>
<thead>
<tr>
<th>Basic Pattern</th>
<th>Guide</th>
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<th></th>
<th>Readers</th>
<th></th>
<th></th>
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<td>Frequecy</td>
<td>Per Cent</td>
<td>Rank</td>
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<td>3.0</td>
<td>6.000</td>
<td>8.219</td>
<td>4.5</td>
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<td>7.0</td>
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</table>

The patterns which were rarely used in declarative statements were also rarely used in questions. There were no questions with the objective complement patterns in the
Readers, while there were two questions with objective complements in the Guide. The first question, *Did the people elect the mayor?* was used in the oral presentation of the predicate pattern *elect/choose+Noun-Objective Complement.*

The expletive pattern was also rarely used in questions. This pattern did not occur in questions in the Guide, while only one question had the expletive pattern in the Readers.

The most common basic pattern in questions conformed to the findings of other studies. The frequency of *Noun-Subject+Verb-Transitive+Noun-Direct Object* pattern shows its high functional value. It seemed that the inclusion of the questions with the objective complement was intended to meet the communication needs of pupils in connection with social studies. The

**TABLE VIII**

**FREQUENCY, PER CENT AND RANK OF UNDERLYING BASIC PATTERNS IN QUESTIONS EXCLUDING QUOTED EXPRESSIONS IN THE GUIDE AND IN THE READERS**

<table>
<thead>
<tr>
<th>Basic Pattern</th>
<th>Guide</th>
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<th></th>
<th></th>
<th></th>
<th>Readers</th>
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<td>Exp-VT-Subj.</td>
<td>0.000</td>
<td>0.000</td>
<td>9.0</td>
<td>0.000</td>
<td>0.000</td>
<td>8.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
predicate pattern *elect/choose+Noun-Objective Complement* was appropriate for the subject-matter on elections in social studies.

Using Spearman's formula for rank correlation coefficient, a correlation of .92 existed between the basic patterns underlying the questions in the *Guide* and in the *Readers*. This reflects high relationship of the patterns in the reading materials and those patterns taught in the oral language lessons.

In Table VIII, questions which occurred in quoted expressions classified as Category IA were excluded from the data. The data in Table VIII were based on only 38 questions in the *Readers*, although the number of samples from the *Guide* remained the same. Of the thirty-eight questions, twenty were "Yes--No" questions which represented 53 per cent, while 47 per cent were "Wh-" questions. In the *Readers*, only two questions were negative and one question was partial.

Except for the three rarely used patterns, the first six ranking patterns were the same in both the *Readers* and the *Guide*. The most popular pattern, which ranked first in both materials was the *Noun-Subject+Verb-Transitive+Noun-Direct Object* pattern. The pattern *Noun-Subject+Verb-Linking+Noun-Predicate Nominative* was second in frequency.

The correlation coefficients of the patterns in Table VII is .98 compared to .92 in Table VIII. These rank correlation coefficients reflect a high degree of similarity in the kinds of underlying basic patterns in questions in the *Guide* and
in the Readers. The values were found to be highly significant beyond the .01 level in a one-tailed test.

**Types of Transformations in Derived Statements**

All statements in the language samples were classified as either declarative or derived. In this study, derived statements are T-units which have been converted into one or more of the passive, negative, imperative, emphatic, interjection or partial type of transformations as illustrated in the following:

- **Passive:** The cat was chased by the dog.
- **Negative:** He isn't going home.
- **Imperative:** Come back soon.
- **Emphatic:** You do work very hard.
- **Interjection:** Yes, he is.

A T-unit may reveal two or more transformations operating on its basic structure such as the passive and the negative in the sentence, *He wasn't admired by everyone* or imperative and emphatic in, *Do come back soon*, or the partial and negative in *No, he isn't*. A comparison of the frequency of these types of transformations in the language samples from the Guide and the Readers is shown in Table IX.

The three most common transformation types in derived statements in both the Guide and the Readers were the negative, imperative and partial. These three types of transformations constituted 87.86 per cent of the total number of transformations in derived statements in the Guide, while in the Readers, these transformations represented 84.83 per cent. The
TABLE IX
'FREQUENCY, PER CENT, AND RANK OF TYPES OF TRANSFORMATIONS
'IN DERIVED STATEMENTS INCLUDING QUOTED EXPRESSIONS
IN THE GUIDE AND IN THE READERS

<table>
<thead>
<tr>
<th>Type</th>
<th>Guide</th>
<th></th>
<th></th>
<th>Reader</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fre-</td>
<td>Per</td>
<td>Rank</td>
<td>Fre-</td>
<td>Per</td>
<td>Rank</td>
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<tr>
<td></td>
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<td>Cent</td>
<td></td>
<td>quen-</td>
<td>Cent</td>
<td></td>
</tr>
<tr>
<td>Passive</td>
<td>9.00</td>
<td>5.45</td>
<td>4.5</td>
<td>8.00</td>
<td>3.79</td>
<td>5.0</td>
</tr>
<tr>
<td>Negative</td>
<td>61.00</td>
<td>36.96</td>
<td>1.0</td>
<td>59.00</td>
<td>27.96</td>
<td>2.0</td>
</tr>
<tr>
<td>Imperative</td>
<td>31.00</td>
<td>18.78</td>
<td>3.0</td>
<td>84.00</td>
<td>39.81</td>
<td>1.0</td>
</tr>
<tr>
<td>Emphatic</td>
<td>0.00</td>
<td>0.00</td>
<td>6.0</td>
<td>4.00</td>
<td>1.89</td>
<td>6.0</td>
</tr>
<tr>
<td>Interjection</td>
<td>9.00</td>
<td>5.45</td>
<td>4.5</td>
<td>20.00</td>
<td>9.45</td>
<td>4.0</td>
</tr>
<tr>
<td>Partial</td>
<td>53.00</td>
<td>33.33</td>
<td>2.0</td>
<td>36.00</td>
<td>17.06</td>
<td>3.0</td>
</tr>
</tbody>
</table>

The most common derived statement in the Guide was the negative statement while the most frequent type of derived statement in the Readers was the imperative. There were half as many partials in the Guide as in the Readers, while the frequency of imperatives in the Readers was more than in the Guide.

The number of rare transformations in the Readers exceeded the number in the Guide. There were more interjections and emphatic statements in the Readers, although the passive transformation was rare in both the Readers and the Guide.

The relatively greater number of the imperative transformation in the Readers was due to the common use of dialog in the narratives. The quoted speech or direct discourse usually took the form of commands or requests where the subject or the person to whom the command or request was addressed was deleted. The frequent occurrence of the partials, especially
in the **Guide**, also indicated the informal conversational style of the language.

It seemed that the functional value of the negative transformation in expressing concepts accounted for its popularity. The negative transformation is also commonly used in tag questions and short answers such as in *Isn't he?* and *No, he isn't*.

A rank correlation coefficient of .82 was found between the types of transformations in derived statements in the **Guide** and in the **Readers**. This indicated a fairly close similarity between the types of transformations in derived statements in both materials. A one-tailed test based on N equals 6 indicated significance of the values at the .05 level.

**Frequency of Underlying Basic Patterns in Derived Statements**

Comparison of the relative frequency of basic patterns in derived statements based on the data including quoted expressions in the **Guide** and in the **Readers** as shown in Table X indicated that the patterns **Noun-Subject+Verb-Transitive+Noun-Direct Object** and **Noun-Subject+Verb-Intransitive** ranked first and second in both materials. This finding conformed to the data in the analysis of declarative statements in which the two patterns ranked first and second in the frequency of occurrence. Although there was lack of one-to-one correspondence in rank of the commonly used patterns due to the relatively high frequency of the **Noun-Subject+Verb-Transitive+Noun-Direct**
Object+Noun-Objective Complement in the Readers, the patterns of high frequency were the Noun-Subject+Verb-Linking+Noun-Predicate Adjective which ranked third in the Guide and fourth in the Readers, and the Noun-Subject+Verb-Linking+Noun-Predicate Nominative which ranked fourth in the Guide and fifth in the Readers.

The expletive pattern and the Noun-Subject+Verb-Transitive+Noun-Direct Object+Adjective-Objective Complement pattern did not occur in derived statements in the Guide while the Noun-Subject+Verb-Linking+Adverb (Location) occurred only once. The adjective-objective complement pattern was rarely used in the Readers while the indirect object pattern occurred more often in the Guide.

A striking finding in the analysis was the relatively high frequency of the Noun-Subject+Verb-Transitive+Noun-Direct Object+Noun-Objective Complement which ranked third in the Readers but ranked sixth in the Guide. This observation did not conform to the analysis of basic patterns of declarative statements and questions.

Verification of the high frequency of the pattern of Noun-Subject+Verb-Transitive+Noun-Direct Object+Noun-Objective Complement in the Readers revealed that the pattern occurred in a greater number of times in the form of "Let's"+ base form of verb which is analyzed as (You) + "let's" (You and us) + to verb or Noun-Subject+Verb-Transitive+Noun-Direct Object+Noun-Objective Complement. The infinitive is used as objective
complement. This expression of "Let's_ _____" was commonly used in the dialogs in the Readers. It seemed that the frequent use of this pattern was dictated by its appropriateness to the context of group experiences of children in the narratives found in the Readers.

<table>
<thead>
<tr>
<th>Basic Pattern</th>
<th>Guide</th>
<th></th>
<th></th>
<th>Readers</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Per Cent</td>
<td>Rank</td>
<td>Frequency</td>
<td>Per Cent</td>
<td>Rank</td>
</tr>
<tr>
<td>Ns-VI</td>
<td>19.000</td>
<td>17.60</td>
<td>2.0</td>
<td>39.000</td>
<td>22.65</td>
<td>2.0</td>
</tr>
<tr>
<td>Ns-VL-Adj.</td>
<td>13.000</td>
<td>12.05</td>
<td>3.0</td>
<td>14.000</td>
<td>8.14</td>
<td>4.0</td>
</tr>
<tr>
<td>Ns-VL-N.p.n.</td>
<td>10.000</td>
<td>9.25</td>
<td>4.0</td>
<td>10.000</td>
<td>5.81</td>
<td>5.0</td>
</tr>
<tr>
<td>Ns-VL-Adv.</td>
<td>1.000</td>
<td>0.93</td>
<td>7.0</td>
<td>6.000</td>
<td>3.49</td>
<td>6.0</td>
</tr>
<tr>
<td>Ns-VT-N.d.o.</td>
<td>56.000</td>
<td>51.90</td>
<td>1.0</td>
<td>69.000</td>
<td>40.10</td>
<td>1.0</td>
</tr>
<tr>
<td>Ns-VT-N.i.o.</td>
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</tr>
<tr>
<td>-N.d.o.</td>
<td>5.000</td>
<td>4.63</td>
<td>5.0</td>
<td>1.000</td>
<td>0.58</td>
<td>8.5</td>
</tr>
<tr>
<td>Ns-VT-N.d.o.</td>
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</tr>
<tr>
<td>-N.o.c.</td>
<td>4.000</td>
<td>3.70</td>
<td>6.0</td>
<td>27.000</td>
<td>15.70</td>
<td>3.0</td>
</tr>
<tr>
<td>Ns-VT-N.d.o.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Adj.o.c.</td>
<td>0.000</td>
<td>0.00</td>
<td>8.5</td>
<td>1.000</td>
<td>0.58</td>
<td>8.5</td>
</tr>
<tr>
<td>Exp-VT-Subj.</td>
<td>0.000</td>
<td>0.00</td>
<td>8.5</td>
<td>5.000</td>
<td>2.92</td>
<td>7.0</td>
</tr>
</tbody>
</table>

The .78 correlation based on Spearman's formula or rho reveals that there is a fairly close relationship between the basic patterns of derived statements in the Guide and in the Readers. There was correspondence in rank of the two most common patterns, but the relatively high frequency of the nominal-objective pattern in the Readers was not found in the Guide.
Table XI which excluded from the data the quoted expressions in dialogs as independent T-units reduced the number of derived statements with the expletive pattern in the Readers from a rank of five in Table X to a rank of eight in Table XI. The correspondence of the two highest ranking patterns in the Guide and in the Readers in Table X is maintained in Table XI, with the Noun-Subject+Verb-Transitive+Noun-Direct Object pattern as rank one and the Noun-Subject+Verb-Intransitive as rank two. The relative proportion of the number of the nominal objective complement pattern remained the same with the rank of three.

<table>
<thead>
<tr>
<th>Basic Pattern</th>
<th>Guide</th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Fre</td>
<td>Per</td>
<td>Rank</td>
<td>Fre</td>
<td>Per</td>
<td>Rank</td>
<td>Fre</td>
<td>Per</td>
<td>Rank</td>
<td>Fre</td>
<td>Per</td>
</tr>
<tr>
<td>Ns-V.I</td>
<td>19.000</td>
<td>17.60</td>
<td>2.0</td>
<td>22.000</td>
<td>12.80</td>
<td>2.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ns-VL-Adj.</td>
<td>13.000</td>
<td>12.05</td>
<td>3.0</td>
<td>6.000</td>
<td>3.48</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ns-VL-N.p.n.</td>
<td>10.000</td>
<td>9.25</td>
<td>4.0</td>
<td>6.000</td>
<td>3.48</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ns-VL-Adj.</td>
<td>1.000</td>
<td>9.25</td>
<td>7.0</td>
<td>4.000</td>
<td>2.32</td>
<td>6.0</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Ns-VT-N.d.o.</td>
<td>56.000</td>
<td>51.90</td>
<td>1.0</td>
<td>48.000</td>
<td>27.90</td>
<td>1.0</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ns-VT-N.i.o -N.d.o.</td>
<td>5.000</td>
<td>4.63</td>
<td>5.0</td>
<td>1.000</td>
<td>0.58</td>
<td>8.0</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ns-VT-N.d.o. -N.o.č.</td>
<td>4.000</td>
<td>3.70</td>
<td>6.0</td>
<td>17.000</td>
<td>9.89</td>
<td>3.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ns-VT-N.d.o. Adj.o.č.</td>
<td>0.000</td>
<td>0.00</td>
<td>8.5</td>
<td>1.000</td>
<td>0.58</td>
<td>8.0</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Exp-VT-Subj.</td>
<td>0.000</td>
<td>0.00</td>
<td>8.5</td>
<td>1.000</td>
<td>0.58</td>
<td>8.0</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
The rank correlation coefficient of .80 is also indicative of the fairly good relationship of the basic patterns underlying the derived statements in the *Guide* and in the *Readers*. A one-tailed test revealed significance at the .01 level.

**SECOND-LEVEL ANALYSIS**

**Nature of Sentence-Combining Transformations**

The first-level analysis was aimed towards a description of the basic pattern of the T-unit and variations resulting from processes of transformations within the single grammatical structure. The following section deals with the second-level analysis which was concerned with a description of variations resulting from processes of transformations as one T-unit is consolidated into another T-unit. The first-level analysis was focused on single-base transformations while the second-level analysis was concerned with double-base transformations, aptly called sentence-combining transformations.

It has been discussed earlier in this chapter how the length of a T-unit increases as more subordinate clauses and non-clausal modifiers are attached at various points within its structure. This capacity of the T-unit to absorb other grammatical structures into its framework can be explained by Chomsky's\(^2\) theory of transformational generative grammar.

Simply stated, the theory maintains that a constituent sentence can be embedded into a matrix sentence to produce a single interrelated unit through various transformational processes including rearrangements, deletions, substitutions and expansions. These sentence-combining transformations compress two or more sentences into one intricate sentence.

It has been explained earlier that the kind and number of sentence-combining transformations are related to the grammatical complexity of the sentence. As one sentence is reduced to phrases and clauses and consolidated into another sentence, the information load of the derived sentence is also increased. Loban claims that "phrases and dependent clauses are verbal means of showing relationships: through them speakers communicate more complex propositions than are possible with simple independent clauses." Therefore, it has been assumed in this study that sentence-combining transformations influence the difficulty of a reading passage.

Oral familiarity with the sentence-combining transformations in reading materials will ease the difficulty of comprehension. Comparison of the kind and number of sentence-combining transformations in the language samples drawn from the oral language materials used in Philippine schools and the sentence-combining transformations in reading passages will be presented in the following section.

---

Kinds and Average Number of Sentence-Combining Transformations

The three general categories of constructions produced from sentence-combining transformations are nominal constructions, adverbial constructions, and coordinate constructions. A nominal construction is produced when the transformation-derived structure functions as a noun phrase in the sentence. Adverbial constructions resulting from sentence-combining transformations are either adverbial clauses or reduced adverbial clauses. Coordinate constructions are nominals, predicates, and modifiers which are coordinated elements within the T-unit.

Figure 4 compares the number of nominal, adverbial and coordinate constructions in the Guide and Readers. The number of nominal constructions produced by sentence-combining transformations exceeded the other kinds of constructions in both language and reading materials. The number of nominal constructions in the Readers which constituted 71.71 per cent was relatively greater than the number in the Guide which was equivalent to 63.88 per cent. But the number of adverbial constructions in the Guide was relatively greater than the adverbial constructions in the Readers.

Coordinate constructions were not very common in both the Readers and the Guide. The percentage of coordinate constructions in the Guide which was 6.68 per cent did not differ greatly from the coordinate constructions in the Readers which constituted 6.37 per cent.
NUMBER OF SENTENCE-COMBINING TRANSFORMATIONS IN PER CENT

TYPES OF CONSTRUCTIONS PRODUCED BY SENTENCE-COMBINING TRANSFORMATIONS IN THE GUIDE COMPARED TO THE READERS

FIGURE 4
The great number of nominal constructions in the find-
ings seemed to confirm what linguists claim as the general characteristic of the English language. Thomas states that "English is a nominalizing language. There are more operations that transform words or groups of words into noun phrases than there are similar operations for creating new members of any other part-of-speech category."\(^4\)

As has been indicated earlier in the first-level analysis, the mean T-unit length in words in the Readers was greater than the mean T-unit length in the Guide by 1.34 and that this difference in means was found to be highly significant. Since T-unit lengthens as more subordinate clauses and phrases are attached to the basic structure, therefore T-unit length is positively related to the number of sentence-combining transformations that derive clauses and phrases. Computation of the number of sentence-combining transformations per T-unit showed that there were more sentence-combining transformations per T-unit in the Readers than in the Guide. The mean number of sentence-combining transformations in the Readers was 1.66 compared to 1.11 in the Guide. For every T-unit in the Readers, there were 1.66 derived constructions produced by sentence-combining transformations compared to 1.11 derived constructions embedded in every T-unit in the

Guide. A test of the significance of the difference between the means revealed that the difference is significant at the .0001 level.

Nominal Constructions

Nominal constructions have been classified into two sub-types: headed and non-headed nominal constructions. In headed nominal constructions, the modified noun called the head could function grammatically by itself in place of the whole construction. For example, the head man in the construction, *The very rich young man* could function by itself as subject in the sentence, *The very rich young man bought a car.* Thus the sentence becomes *The man bought a car.* Non-headed nominal constructions are those in which no single word by itself could function grammatically in place of the whole structure. No single word in the noun clause, *who she is* could replace the construction which functions as direct object in *John knows who she is.*

The kinds of headed and non-headed nominal constructions which have been illustrated with matrix and insert sentences in Chapter III are the following:

---

A. Headed

1. Noun+Noun
   The telephone operator is busy.

2. Noun+Adjective
   The rich man bought a car.

3. Noun+Prepositional Phrase
   The girl in the car is attractive.

4. Noun+Adverb
   The man upstairs rang the bell.

5. Noun+Possessive
   John's hat is on the table.

6. Noun+Relative Clause
   He sold the house that he bought last year.

7. Noun+ØRelative Clause
   She's the girl I met yesterday.

8. Noun+Infinitive
   I borrowed a book to read.

9. Noun+Participle
   The nurse carried the sleeping baby.

B. Non-Headed

1. Noun Clause (Direct Object)
   He knew where he was going.

2. Gerund (Subject)
   Dancing is her hobby.

3. Infinitive Phrase (Direct Object)
   The student wanted to win the contest.
4. Infinitive Phrase with Subject
   (Objective Complement)
   He made him win the contest.

5. Prepositional Phrase
   (Objective Complement)
   The boys put the tent up.

Kinds of Headed Nominal Constructions

Findings on the frequency of occurrence in the kinds of headed nominal constructions are indicated in Table XII.

TABLE XII
KINDS OF HEADED NOMINAL CONSTRUCTIONS IN THE GUIDE AND IN THE READERS

<table>
<thead>
<tr>
<th>Kinds</th>
<th>Guide</th>
<th></th>
<th></th>
<th>Readers</th>
<th></th>
<th></th>
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<tr>
<td></td>
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<td>Rank</td>
<td>Frequency</td>
<td>Per Cent</td>
<td>Rank</td>
</tr>
<tr>
<td>Noun+Noun</td>
<td>73</td>
<td>32.2</td>
<td>1.0</td>
<td>89</td>
<td>23.7</td>
<td>2.0</td>
</tr>
<tr>
<td>Noun+Adj.</td>
<td>56</td>
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<td>79</td>
<td>21.0</td>
<td>3.0</td>
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<tr>
<td>Noun+Adv.</td>
<td>3</td>
<td>1.3</td>
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<td>8</td>
<td>2.1</td>
<td>9.0</td>
</tr>
<tr>
<td>Noun+Prep.</td>
<td>30</td>
<td>13.2</td>
<td>4.0</td>
<td>51</td>
<td>13.6</td>
<td>4.0</td>
</tr>
<tr>
<td>Phrase</td>
<td>46</td>
<td>20.3</td>
<td>3.0</td>
<td>102</td>
<td>27.1</td>
<td>1.0</td>
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<tr>
<td>Noun+Pos.</td>
<td>4</td>
<td>1.8</td>
<td>7.0</td>
<td>9</td>
<td>2.4</td>
<td>7.5</td>
</tr>
<tr>
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<td>2</td>
<td>0.9</td>
<td>9.0</td>
<td>3</td>
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<tr>
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<td>6</td>
<td>2.6</td>
<td>6.0</td>
<td>9</td>
<td>2.4</td>
<td>7.5</td>
</tr>
<tr>
<td>Noun+Infin.</td>
<td>7</td>
<td>3.1</td>
<td>5.0</td>
<td>16</td>
<td>4.3</td>
<td>5.0</td>
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</tbody>
</table>

The table suggests that the three most common headed nominal constructions in both the Guide and the Readers were the noun+noun, noun+adjective, and noun+possessive. However,
there was relatively greater frequency of noun+noun and noun+adjective in the Guide, and a relatively greater frequency of the noun+possessive in the Readers.

The large number of nominal constructions, noun+adjective, noun+prepositional phrase and noun+possessive only confirmed the findings of other studies on the popularity of the adjective, the prepositional phrase and the possessive as modifiers of nouns. Possessive constructions such as Elsa's book, with the noun in the possessive form, and possessive pronouns as in her brother, their friend and mine were more common in the reading materials.

The noun+noun construction includes compound nouns such as City Hall, oyster shell, etc., appositives such as Berto, the brag, and nominatives of address used in apposition to the subject nominal as Nena, will you help Rosa? This construction exceeded any of the other headed nominal constructions in frequency of occurrence and constituted more than one half for both the Readers and the Guide. The greater number seemed to be due to the common use of commands and requests in the dialogs using the nominative of address. The frequent use of compound nouns, especially in the oral language materials was due to emphasis on its correct use. It has been recognized that the Filipino speaker of English has special difficulty on the stress pattern of compound nouns so that curriculum materials have included lessons to overcome this difficulty.

Comparing the frequency of occurrence of the kinds of
headed nominal constructions in the Guide and in the Readers, a rank correlation coefficient of .84 existed between the two sets of language samples. This figure revealed a fairly high relationship between the ranks based on the kinds and frequency of headed nominal constructions in the Guide and in the Readers, although the relative frequency of occurrence of rare constructions was greater in the Readers. A one-tailed test revealed that the value of the rank correlation coefficient was significant at the .05 level.

Closer examination of the kinds of headed nominal constructions in the samples revealed that certain sub-types of nominals occurred more frequently in the Readers than in the Guide. The following sentences from Fun At Home and Away, First Reader, Level II, illustrate the sub-type of noun-participle construction which occurred rarely in the Guide:

1. They saw Efren playing with his red boat in the ditch.
2. One of the girls saw Elsa coming.
3. He saw them getting near the plants.
4. Aunt Loleng heard Mother and Romel talking.
5. Just before they went out, they heard a man calling, "There's a good movie tonight."

In this analysis, the participial phrase in the above sentences was regarded as adjectival modifying the direct object. But this construction is considered ambiguous and

---

may be analyzed in a second way where the participial phrase is complement to the verb. This inherent ambiguity would seem to make the sentences difficult for beginning reading.

An observation which seemed to account for the greater mean number of words in each T-unit in the Readers was the relatively more frequent use of relative clauses as noun modifiers. The relative clause retains the subject and the finite verb whereas other nominal constructions involve deletion of a larger portion of the elements of the constituent sentences. For example, the sentence, the room is upstairs is converted into room upstairs as noun+adverb construction, but is transformed into which is upstairs as a relative clause. In the Readers, relative clauses constituted 5.9 per cent compared to 2.7 per cent in the Guide.

Further study of representative sentences containing relative clauses in the Readers revealed how the sentence-combining transformations influence grammatical complexity and greater length of T-unit. The following sentences are from Fun At Home and Away, First Reader, Level II:

1. We can go look for the things we need.
2. I hope she's the girl you are looking for.
3. So the boys went to look for the things they could play with.
4. They gave Nita's mother all the money they got from selling the boiled bananas.

All the above sentences contain constructions produced by sentence-combining transformations other than the relative
clause. The first sentence has an adverbial infinitive of purpose, *to look after go*, and the second sentence has a noun clause embedding another clause. The noun clause *(that)* she's a girl which is used as direct object embeds the relative clause *you are looking for*. The third sentence has an adverbial infinitive phrase *to look for the things*. Four sentence-combining transformations including the relative clause make sentence four an intricate grammatical unit. It contains the *noun+possessive, Nita's mother*, a gerund used as object of the preposition, *selling, a noun+participle, boiled bananas* and the *relative clause, they got*.

Kinds of Non-Headed Nominal Constructions

Table XIII, Data 1, indicates a one-to-one correspondence of the relative frequency of occurrence of the kinds of non-headed nominal constructions in the *Readers* and in the *Guide*. The table shows that noun clauses constituted the greatest percentage in frequency in both the *Readers* and the *Guide*. The data included the quoted speech in the dialogs which were classified in this study as noun clauses performing the function of direct object of the verb of *saying* or *asking* in the introductory clause.

In Table XIII, Data 2, with the exclusion of these "pseudo-noun" clauses numbering 217 in the *Readers* and 2 in the *Guide*, the infinitive ranked first in relative frequency of occurrence in the *Readers* while noun clauses ranked second. The least common non-headed nominal construction was the prepositional phrase or adverbial locative.
### TABLE XIII
KINDS OF NON-HEADED NOMINAL CONSTRUCTIONS IN THE GUIDE AND IN THE READERS

**Data 1***

<table>
<thead>
<tr>
<th>Kinds</th>
<th>Guide</th>
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<th></th>
<th>Readers</th>
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<td>Rank</td>
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<tr>
<td></td>
<td>quency</td>
<td>Cent</td>
<td></td>
<td>quency</td>
<td>Cent</td>
<td></td>
</tr>
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<td>257</td>
<td>69.65</td>
<td>1</td>
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<td>17</td>
<td>4.63</td>
<td>4</td>
</tr>
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<td>53</td>
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<td>2</td>
</tr>
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**Data 2**

<table>
<thead>
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<th>Readers</th>
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<td>Rank</td>
<td>Fre-</td>
<td>Per</td>
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<tr>
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<td>Cent</td>
<td></td>
<td>quency</td>
<td>Cent</td>
<td></td>
</tr>
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<td>Noun Clause</td>
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<td>40</td>
<td>26.00</td>
<td>2</td>
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<tr>
<td>Gerund</td>
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<td>13.44</td>
<td>4</td>
<td>17</td>
<td>11.33</td>
<td>4</td>
</tr>
<tr>
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<td>31.34</td>
<td>2</td>
<td>53</td>
<td>35.33</td>
<td>1</td>
</tr>
<tr>
<td>Infin. with Subj.</td>
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<td>19.40</td>
<td>3</td>
<td>36</td>
<td>24.00</td>
<td>3</td>
</tr>
<tr>
<td>Prep. Phr.</td>
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<td>1.49</td>
<td>5</td>
<td>3</td>
<td>3.33</td>
<td>5</td>
</tr>
</tbody>
</table>

*Including quoted speech classified as noun clause.

**Excluding quoted speech classified as noun clause.

The rank correlation coefficient of .90 based on Data 2 indicated that a high degree of similarity existed in the frequency of the kinds of non-headed nominal constructions in the Guide and in the Readers. A one-tailed test showed significance at the .05 level.
However, certain structural characteristics related to noun clauses performing the function of direct object in the dialogs in the Readers showed how T-units in the Readers acquired greater T-unit length through greater number of sentence-combining transformations. The expansion of the introductory clause of the direct discourse preceding the noun clauses through more sentence-combining transformations lengthened the T-unit in the Readers as illustrated in the sentence, "And always be careful when you cross the street, too," said the policeman as he let the jeep driver go.

The introductory clause said the policeman is expanded by the adverbial construction as he let the jeep driver go. Another embedded structure in the adverbial clause is the infinitive to go which is used as objective complement.

It was also noted in several samples from the Readers that the infinitive phrases were fairly long compared to the infinitive phrases in the Guide. This lengthening of infinitive phrases was due to the use of noun clauses as direct objects of the infinitives as in the following sentences:

1. I don't want to know what the surprise is.
2. I want to see why it gets nectar from flowers.
3. Do you want to know why her teeth are healthy?
4. They want to see what they have grown.
5. Nonong put down the crabs and began to think about what he could do with them.

The use of noun clauses as direct object of the infinitive was found more often in the Readers. On the other hand,
the infinitive construction in the sentence, *You do nothing but work*, which is actually *You do nothing except to work*, where the infinitive *(to) work* is the object of the preposition *except* occurred in the *Guide*, but not in the *Readers*.

**Grammatical Functions of Headed Nominals**

After classifying the kinds of nominal constructions built by sentence-combining transformations, the next phase of the analysis was to determine the functions performed by these constructions in the sentence. The sentences below illustrate the grammatical functions of headed nominal constructions which were analyzed:

1. Subject (Noun+Possessive)
   
   *John's brother* won the contest.

2. Direct Object (Noun+Relative Clause)
   
   The police caught the prisoner *who escaped*.

3. Object of the Preposition (Noun+Adjective)
   
   I saw him in the *big city*.

4. Indirect Object (Noun+Participle)
   
   The nurse gave the *crying baby* his toy.

5. Subject Complement (Noun+Participle)
   
   Joan is a *singing star*.

6. Objective Complement (Noun+Adjective)
   
   The people thought him a *loyal patriot*.

7. Appositive (Noun+Possessive)
   
   Ellen, *my secretary*, is very efficient.

8. Adverbial Noun (Noun+Preposition)
   
   He walked a *mile away*.
Table XIV shows that in both the Readers and the Guide, the grammatical functions performed by headed nominal constructions centered around only four: subject, direct object, object of preposition, and subjective complement. In other words, most of these nominal constructions usually occupied positions within the sentence reserved for subject, direct object, object of preposition, and subjective complement.

| TABLE XIV |
| GRAMMATICAL FUNCTIONS OF HEADED NOMINAL CONSTRUCTIONS IN THE GUIDES AND IN THE READERS |

<table>
<thead>
<tr>
<th></th>
<th>Guide</th>
<th></th>
<th></th>
<th>Readers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fre-</td>
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<td>Rank</td>
<td>Fre-</td>
<td>Per Cent</td>
</tr>
<tr>
<td></td>
<td>quency</td>
<td></td>
<td></td>
<td>quency</td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>69</td>
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<td>108</td>
<td>28.7</td>
</tr>
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<td>Direct Obj.</td>
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<td>152</td>
<td>40.4</td>
</tr>
<tr>
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<td>21.0</td>
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<td>6.5</td>
<td>5</td>
<td>1.3</td>
</tr>
<tr>
<td>Subj. Comp.</td>
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<td>4.0</td>
<td>27</td>
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</tr>
<tr>
<td>Obj. Comp.</td>
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<td>8.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Appositive</td>
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<td>0.8</td>
</tr>
<tr>
<td>Adv. Noun</td>
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<td>0.9</td>
<td>6.5</td>
<td>.2</td>
<td>0.5</td>
</tr>
</tbody>
</table>

In the Guide, the total number of structures performing the four functions constituted 95.6 per cent with only ten constructions, equivalent to 4.4 per cent used as indirect object, objective complement, appositive, and adverbial noun. In the Readers, the greater proportion, equivalent to 97.3 per cent performed the four grammatical functions, while there were a mere ten constructions, equivalent to 2.7 per cent
performing the rarer functions. No construction was used as objective complement in the Readers.

Table XIV also shows that the most common grammatical functions of headed nominal constructions in both the Readers and the Guide were as subjects and direct objects. The relative frequencies of nominals used as subjects and direct objects were almost the same in both the Readers and the Guide. But more nominals were used as objects of preposition in the Readers than in the Guide.

There was a very close similarity of the Readers and the Guide in the kinds of nominal constructions which were used as subjects, direct objects, objects of prepositions, and subjective complements. Certain kinds of nominal constructions often occupied positions within the sentence reserved for these four grammatical functions.

The three nominal constructions in the subject and direct object positions which ranked first, second and third in frequency were identical in both the Readers and the Guide. The noun+noun, the noun+possessive and the noun+adjective which ranked first, second and third in frequency of occurrence were used as subjects. In the case of direct objects the first four ranking constructions which assumed this function were the noun+adjective, the noun+preposition, the noun+possessive and the noun+noun. In both sets of language samples the most common form of subjective complement was the noun+adjective construction.
The rank correlation coefficient of .95 based on frequency of occurrence of the kinds of nominals performing the different grammatical functions indicated that a fairly high degree of relationship existed between the Guide and the Readers in the grammatical functions performed by the different types of headed nominal constructions. The value of the rank correlation coefficient was found to be significant at the .05 level.

But there were relatively more rare nominal constructions performing the different grammatical functions in the Readers than in the Guide. There were more noun+relative clause constructions used as direct objects, objects of prepositions and subjective complements in the Readers than in the Guide. A type of noun+participle construction after such verbs as see, watch, hear, which was regarded as ambiguous, occurred frequently in the Readers but was seldom found in the Guide.

Grammatical Functions of Non-Headed Nominal Constructions

The greatest percentage of non-headed nominal constructions in both the Readers and the Guide performed the function of direct object. These included noun clauses, gerunds, and infinitives with subjects. Table XV, Data 1 shows that there were 316 non-headed constructions used as direct objects in the Readers compared to 47 in the Guide. This number included 217 which were actually the quoted speech of dialogs in the Readers, classified in this study as noun clauses used as direct objects of the verbs of saying or asking in the introductory clause.
TABLE XV
GRAMMATICAL FUNCTIONS OF NON-HEADED NOMINAL CONSTRUCTIONS
IN THE GUIDE AND IN THE READERS

Data 1*

<table>
<thead>
<tr>
<th>Functions</th>
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<th>Readers</th>
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<td>Rank</td>
<td>Fre- quency</td>
<td>Per Cent</td>
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<tr>
<td>Subject</td>
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<td>1.1</td>
<td>4.5</td>
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<tr>
<td>Direct Obj.</td>
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<td>5</td>
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<td>3.0</td>
</tr>
<tr>
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<td>0.0</td>
<td>6.0</td>
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<td>4.5</td>
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<td>2.0</td>
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Data 2**

<table>
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<th></th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
<td>Per Cent</td>
<td>Rank</td>
<td>Fre- quency</td>
<td>Per Cent</td>
</tr>
<tr>
<td>Subject</td>
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<td>4.4</td>
<td>3.5</td>
<td>4</td>
<td>2.7</td>
<td>4.5</td>
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<tr>
<td>Direct Obj.</td>
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<td>24.8</td>
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</tr>
</tbody>
</table>

*Including quoted speech as noun clauses used as direct objects of verbs of saying or asking.

**Excluding quoted speech as noun clauses used as direct objects of verbs of saying or asking.

Excluding these "pseudo-noun" clauses as indicated in Table XV, Data 2, ninety-nine constructions were used as direct objects in the Readers and forty-five in the Guide.
The second greatest percentage of non-headed nominals were used as objective complements in the Readers and in the Guide. The constructions which performed the function of objective complements were solely infinitives with subject and prepositions.

Non-headed nominal constructions were rarely used as subjects, subjective complements and prepositional phrases. No construction was used as indirect object in both the Guide and the Readers.

The grammatical functions performed by nominalized verbs such as gerunds and infinitives were similar in both the Readers and the Guide with two exceptions. In the Readers, the infinitive phrase was found to perform the function of the subjective complement in the sentence, He seemed to be interested in the story. The non-headed nominalized construction to be interested which was derived from the passive was interested did not occur in the Guide. On the other hand, the use of infinitive as object of preposition in such sentence as, You do nothing but work, actually, You do nothing except to work which occurred in the Guide did not have its correspondence in the Readers.

There was greater diversity of the types of verbs with the infinitive as direct object in the Readers, than in the Guide. In the Readers, a number of verbs with infinitives as direct object were such types as tell, ask, as in the sentence, The old moth told the young one not to fly near the fire. The young
one is the indirect object and the infinitive to fly is the direct object. Except in one sentence with the same type of verb as above, use of verbs with infinitives as direct objects in the Guide was limited to want, forget, remember, and tried, as in the sentences, I don't want to see one, When you grow up, what do you want to be?

Another type of verb in the Readers which did not occur with corresponding frequency in the Guide, was the verb type in the sentence, I heard the thunder roar. The infinitive with subject (to) roar was classified in this study as second direct object. The above construction, like the sentence, They saw Elsa playing, is ambiguous and is therefore regarded as difficult for beginning readers.

But no striking difference existed between the verb types used in sentences in which the infinitive with subject performed the function of objective complement. In both the Readers and the Guide, the greatest number of sentences were of the type of Let's + (to) + verb. The other verbs used were help and make as in the sentence, Vitamins help us grow in which the infinitive (to) grow, performed the function of objective complement.

A comparison of the ranks based on frequency of occurrence of grammatical functions performed by non-headed nominal constructions based on Data 2 revealead a rank correlation coefficient of .95 between the samples in the Guide and in the Readers. A one-tailed test indicated significance at the .01 level. But the data also indicated that certain grammatical
functions performed by non-headed nominal constructions in the Readers were not found in the Guide. Many ambiguous structures containing infinitives in the Readers did not occur in the Guide.

Commonly Used Nominal Constructions and Their Functions

The following tabulation gives a summary of the most common nominal constructions performing the grammatical functions which occurred with the highest frequencies in the Guide and in the Readers.

A. Headed Nominals

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<thead>
<tr>
<th></th>
<th>Guide</th>
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<td>Per Cent</td>
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### B. Non-Headed Nominals

<table>
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</table>

**Adverbial Constructions**

Adverbial constructions produced by sentence-combining transformations in the language samples were classified into the following types of clauses and near-clauses illustrated in the sentences below:

1. **Time**
   
   The professor began to give his lecture *when the bell rang*.

2. **Place**
   
   He went *where his services were needed*.

3. **Cause**
   
   Mary won the contest *because she worked very hard*.

4. **Condition**
   
   You will miss your plane *unless you start early*.

5. **Comparison**
   
   Mary is taller than her mother.
6. Complement to the Adjective

He was glad to see his friends.

7. Adverbial Infinitive

He went home to work.

8. Sentence Modifier

In the meantime, he talked to the porter.

Unfortunately, the accident happened.

Yes, I will.

| TABLE XVI |
| FREQUENCY, PER CENT AND RANK OF ADVERBIAL CLAUSES AND NEAR-CLAUSES IN THE GUIDE AND IN THE READERS |

<table>
<thead>
<tr>
<th>Kind</th>
<th>Guide</th>
<th></th>
<th></th>
<th>Readers</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fre-</td>
<td>Per</td>
<td>Rank</td>
<td>Fre-</td>
<td>Per</td>
<td>Rank</td>
</tr>
<tr>
<td></td>
<td>quency</td>
<td>Cent</td>
<td></td>
<td>quency</td>
<td>Cent</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>14</td>
<td>9.29</td>
<td>3.0</td>
<td>33</td>
<td>15.00</td>
<td>3.0</td>
</tr>
<tr>
<td>Place</td>
<td>0</td>
<td>0.00</td>
<td>8.0</td>
<td>5</td>
<td>2.27</td>
<td>7.0</td>
</tr>
<tr>
<td>Cause</td>
<td>10</td>
<td>7.09</td>
<td>5.0</td>
<td>2</td>
<td>0.90</td>
<td>8.0</td>
</tr>
<tr>
<td>Condition</td>
<td>13</td>
<td>9.21</td>
<td>4.0</td>
<td>10</td>
<td>4.54</td>
<td>6.0</td>
</tr>
<tr>
<td>Comparison</td>
<td>42</td>
<td>29.78</td>
<td>2.0</td>
<td>37</td>
<td>16.81</td>
<td>2.0</td>
</tr>
<tr>
<td>Comp. of Adj.</td>
<td>9</td>
<td>6.38</td>
<td>6.0</td>
<td>15</td>
<td>6.81</td>
<td>5.0</td>
</tr>
<tr>
<td>Adv. Infinitive</td>
<td>8</td>
<td>5.67</td>
<td>7.0</td>
<td>24</td>
<td>10.90</td>
<td>4.0</td>
</tr>
<tr>
<td>Sentence Mod.</td>
<td>45</td>
<td>31.91</td>
<td>1.0</td>
<td>94</td>
<td>42.72</td>
<td>1.0</td>
</tr>
</tbody>
</table>

The data presented in Table XVI above indicate that the sentence modifiers and clauses or near-clauses of comparison were the two most common types of adverbial constructions produced by sentence-combining transformations in both the Readers and the Guide. Sentence modifiers, constituting 42.72 per cent in the Readers and 31.91 per cent in the Guide ranked first in frequency of occurrence. In this study, sentence
modifiers included "Yes--No" adverbials and adverbs and phrases occupying either initial or final position which are generally set off by commas.

Clauses and reduced clauses of comparison constituted the second largest number of adverbial constructions in both the Readers and the Guide. The least common adverbial construction in the Readers was the adverbial clause of cause while the adverbial clause of place was not found in the Guide. It seemed that adverbs or prepositional phrases of place were generally used in the language samples.

Although sentence modifiers and clauses and reduced clauses of comparison ranked first and second in frequency of occurrence, the proportion of sentence modifiers was relatively greater in the Readers than in the Guide. Adverbial infinitives occurred more frequently in the Readers but the number of adverbial clauses of cause and condition in the Guide exceeded those in the Readers.

It seemed that the relatively greater frequency of occurrence of sentence modifiers and adverbial infinitives in the Readers was due to the greater number of certain sub-types of sentence modifiers and adverbial infinitives. The use of the participial phrase as sentence modifier in such sentences as, Abul went boating and swimming with his friends in which the participial phrase was classified as sentence modifier shifted to the initial position as in Boating and swimming, Abdul went with his friends occurred frequently in the Readers but only rarely in the Guide. Likewise the type of adverbial
infinitive in the sentence, *I need one to put all these things in*, in which the infinitive expresses the purposes of the action of the main verb, occurred more frequently in the **Readers**.

The rank correlation coefficient of .714 indicates a fair degree of relationship between the **Readers** and the **Guide** based on frequency of occurrence of adverbial constructions. A one-tailed test indicated significance beyond the .05 level.

**Coordinate Constructions**

Coordinate elements within the T-unit are produced by sentence-combining transformations when two or more T-units are coordinated and the common elements in them deleted. The following types of coordinate elements were classified in the language samples:

1. **Nominals**
   
The gardener planted *fruits and vegetables* in the farm.

2. **Predicates**
   
   Judy *sings and dances* on the stage.

3. **Modifiers**
   
The *tired old woman* walked feebly.

The greatest number of coordinated elements in the **Guide** and in the **Readers** were nominals. Table XVII shows that the number of coordinated nominals in the **Guide** exceeded the total number of coordinated predicates and modifiers. But
in the Readers, there were more coordinations of predicates and modifiers than nominals.

### TABLE XVII

**FREQUENCY AND PERCENTAGE OF COORDINATE CONSTRUCTIONS IN THE GUIDE AND IN THE READERS**

<table>
<thead>
<tr>
<th></th>
<th>Guide</th>
<th></th>
<th>Readers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Per cent</td>
<td>Frequency</td>
<td>Per cent</td>
</tr>
<tr>
<td>Nominals</td>
<td>20.00</td>
<td>62.500</td>
<td>27.00</td>
<td>42.187</td>
</tr>
<tr>
<td>Predicates</td>
<td>5.00</td>
<td>15.625</td>
<td>23.00</td>
<td>35.937</td>
</tr>
<tr>
<td>Modifiers</td>
<td>7.00</td>
<td>21.875</td>
<td>14.00</td>
<td>21.875</td>
</tr>
</tbody>
</table>

### SUMMARY OF FINDINGS

1. The length of the sentence was considered in relation to the length of the T-unit which was the basis of syntactic analysis and measurement in the present study. The two factors that influence sentence length are T-unit length and the number of T-units per sentence.

   The mean sentence length of 8.21 in the Readers was greater than the mean sentence length of 7.06 in the Guide. The difference between the means was found to be highly significant.

2. It was established in the analysis that the greater mean length of the sentence in the Readers as compared to the Guide was derived from the length of the T-unit rather than
from the number of T-units per sentence. The average number of T-units per sentence in the Readers was less than the average number of T-units per sentence in the Guide. There were 1.02 T-units for every sentence in the Readers compared to 1.08 T-units for every sentence in the Guide.

3. The factor that contributed to the greater mean length of the sentence in the Readers as compared to the Guide was the greater length of the T-unit. The mean T-unit length in the Readers was 7.94, while the mean T-unit length in the Guide was 6.59.

There were more "short" T-units containing less than nine words in the Guide compared to the Readers, while there were more "middle-length" T-units of nine to twenty words in the Readers than in the Guide. All the T-units in the Guide were either "short" or "middle-length", but there were three "long" T-units of twenty-one words in the Readers.

4. The lengthening of the T-unit in the Readers was due to the greater number of subordinate clauses attached to the main clause. There were more one-clause T-units in the Guide than in the Readers, and there were more multi-clause T-units in the Readers compared to the Guide.

A subordinate clause was added to the main clause 50 per cent of the time in the Readers, while in the Guide, a subordinate clause was added to the main clause 15 per cent of the time. Or if quoted speech in the dialogs which were classified as noun clauses were excluded from the data, the
average number of subordinate clauses for every main clause in the *Readers* would still be greater than in the *Guide*.

The lesser number of subordinate clauses attached to the main clause accounted for the shorter length of the T-units in the *Guide* as compared to the *Readers*. Less subordination also accounted for the greater number of T-units per sentence in the *Guide* than in the *Readers*.

5. There was a high degree of similarity of the underlying basic patterns of simple or complex declarative sentences in the *Guide* and in the *Readers*. The three commonly used patterns were the same in both the *Readers* and the *Guide*, namely, the *Noun-Subject*+*Verb-Transitive*+*Noun-Direct Object*, which ranked first, the *Noun-Subject*+*Verb-Intransitive* which ranked second, and the *Noun-Subject*+*Verb-Linking+Adjective-Predicate Adjective* which ranked third. The greater number of T-units, clustered around the most commonly used doer--action--goal pattern. The three rarely used patterns in both the *Guide* and the *Readers* were the *Noun-Subject*+*Verb-Transitive*+*Noun-Direct Object*+*Noun-Objective Complement*, the *Noun-Subject*+*Verb-Transitive*+*Noun-Direct*+*Adjective-Objective Complement* and the *Expletive-Subject* pattern.

The relative frequency of occurrence of the *Noun-Subject*+*Verb-Transitive*+*Noun-Indirect Object*+*Noun-Direct Object* which ranked fourth in the *Readers* did not correspond to the findings in the *Guide*. The number of T-units with indirect objects in the *Readers* exceeded the number of T-units with the *Noun-Subject*+*Verb-
The findings on the relative frequency of underlying basic patterns in declarative statements confirmed the conclusions of previous studies on the commonly used basic patterns as well as the rarely used patterns.

6. There were relatively more questions in the Guide than in the Readers. Questions constituted 18 per cent of the samples in the Guide and 9 per cent in the Readers. The greatest number of questions in the Guide were of the "Yes--No" type. Further types of questions resulting from transformations which occurred more frequently in the Guide than in the Readers were negative questions, and tag questions or partials. These types of questions resulted in more informal and natural style of language in the Guide, than in the Readers. The types of questions which occurred more frequently in the Readers were questions beginning with interrogative words such as who, what, when.

7. The greater number of questions in the language samples from both the Guide and the Readers were derived from the Noun-Subject+Verb-Transitive+Noun-Direct Object pattern, while the Noun-Subject+Verb-Intransitive ranked second in frequency. Patterns which were rarely found in declarative statements were also rare in questions.

8. The three most common transformations in derived statements in both the Readers and the Guide were the negative,
the imperative, and the partial. The passive, emphatic, and interjection were infrequent.

The negative was the most common transformation operating on derived statements in the Guide, while the imperative was the most common in the Readers. Rare types of transformations such as the emphatic occurred more frequently in the Readers than in the Guide.

9. As in declarative statements and questions, the highest frequency pattern underlying derived statements was the *Noun-Subject+Verb-Transitive+Noun-Direct Object*. The *Noun-Subject+Verb-Intransitive* ranked second in frequency of occurrence. The patterns which were rarely found in declarative statements and questions were also infrequent in derived statements except the *Noun-Subject+Verb-Transitive+Noun-Direct Object+Noun-Objective Complement*. This pattern ranked third in the Readers but the relatively greater frequency was not matched in the Guide. This finding also deviated from data obtained in previous studies on the relative frequency of basic patterns.

10. T-unit was positively related to the number of sentence-combining transformations resulting in constructions which expanded the basic structure. More sentence-combining transformations per T-unit were found in the Readers than in the Guide. For every T-unit in the Readers, there were 1.66 derived constructions produced by sentence-combining transformations compared to 1.11 derived constructions for every T-
unit in the Guide. The number of nominal constructions produced by sentence-combining transformations exceeded the other kinds of constructions in both the Readers and the Guide. This finding conformed to the established characteristic of English as a nominalizing language.

11. The frequency of occurrence of headed nominal constructions in both the Readers and the Guide centered around four: noun+noun, noun+possessive, noun+adjective and noun+prepositional phrase. A high relationship existed between the Guide and the Readers based on the kinds of headed nominal constructions, but there were more rare patterns in the Readers than in the Guide.

12. The most common non-headed nominals in both the Readers and the Guide are noun clauses and infinitives, while gerunds and prepositional phrases were the least common constructions. There was proportionately greater number of infinitives and infinitives with subjects in the Readers than in the Guide. Ambiguous constructions consisting of verb types with infinitives as complements were relatively more frequent in the Readers than in the Guide.

13. Most of the headed nominal constructions in both the Readers and the Guide performed mainly the same grammatical functions as subjects, direct objects, objects of prepositions and subjective complements. These constructions included noun+noun, noun+adjective, noun+possessive, and noun+prepositional phrase.
While the most common headed nominal constructions performed the same grammatical functions, the use of some of the rare constructions was fluctuating and infrequent. There were more rare constructions performing the grammatical functions in the Readers than in the Guide. Noun+relative clause and noun+participle constructions occurred frequently in the Readers than in the Guide.

14. In both the Guide and the Readers, the greater number of non-headed nominal constructions, including noun clauses, infinitive phrases, gerunds and infinitives with subjects, performed the function of direct object. The second greatest number consisting of infinitives with subjects and prepositions were used as objective complements.

In the Readers, the noun clause performed the functions of subject, direct object, object of preposition and subjective complement, while in the Guide, its use was confined only to direct object and subjective complement. The use of the infinitive as a second direct object which was found in the Readers was rare in the Guide.

15. Although sentence modifiers ranked first in frequency of occurrence in both the Guide and the Readers, there was proportionately greater number in the Readers than in the Guide. Some sub-types of participial sentence modifiers which occurred in the Readers were not found in the Guide.

The number of adverbial constructions of comparison, cause and condition in the Guide exceeded that in the Readers,
but there were more adverbial infinitives in the Readers than in the Guide.

16. The greatest number of coordinated elements in both materials were nominals. There were more coordination of predicates and modifiers in the Readers than in the Guide.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

PURPOSE OF THE STUDY

The purpose of this study was to analyze and compare the language structures in the authorized basal readers with the language structures which are taught for oral proficiency in the teaching guides used in Philippine schools where English is taught as a second language. The major assumption underlying this investigation was that children learn to read more effectively if the language structures in beginning reading materials correspond to the language structures which are taught for oral mastery in the language program.

This investigation was designed to answer the following questions:

1. What is the degree of relationship between the language structures in the Readers and in the Guide based on the following linguistic features:
   a) Mean length of the T-units?
   b) Mean length of the sentence?
   c) Average number of T-units per sentence?
   d) Average number of subordinations per sentence?
   e) Average number of sentence-combining transformations per sentence?
2. What is the degree of relationship between the number and kinds of basic patterns and their derived forms in the authorized basal readers and in the Teacher's Guide for English in Grade III?

3. What is the degree of relationship between the number, kinds and grammatical functions of constructions produced by sentence-combining transformations in the authorized basal readers and in Teacher's Guide for English in Grade III?

METHODS AND MATERIALS

The language samples drawn from the Guides and the Readers were segmented into T-units which were the basis of syntactic analysis and measurement.

A T-unit was analyzed on two levels. The first-level analysis gave a description of the sequential pattern of the T-unit and other related features; namely, length of sentence, length of the T-unit, average number of T-units per sentence, and average number of subordinate clauses per sentence. The second-level analysis was concerned with the kinds and grammatical functions of constructions produced by sentence-combining transformations. The average number of sentence-combining transformations which is indicative of grammatical complexity was determined.

Estimates of the degree of relationship between the various features of language structure in the Readers and in the Guide was computed by using Spearman's formula of rank correlation coefficient.
SUMMARY OF FINDINGS AND CONCLUSIONS

The analysis of data showed that the mean length of the T-unit in the Readers was greater than the mean length of the T-unit in the Guide, but there were more T-units per sentence in the Guide than in the Readers. The greater length of the T-unit in the Readers was due to the greater number of subordinate clauses and non-clausal constructions produced by sentence-combining transformations which were attached to the main clause. The relatively greater frequency of the transformation process of reducing independent T-units into dependent clauses and phrases would seem to account for the relatively less number of T-units in the Readers compared to the Guide.

The mean length of the sentence in the Readers was greater than in the Guide. Since the two factors that influence sentence length are T-unit length and the number of T-units per sentence, it was revealed that the greater length of the sentence in the Readers was derived from the length of the T-unit, rather than from the number of T-units in the sentence.

There was a close similarity between the kinds and rank order of basic patterns underlying T-units in the Readers and in the Guide. The frequency of occurrence of basic patterns in both the Guide and the Readers centered around few commonly used patterns. These basic patterns with highest frequencies in this study corresponded to the commonly used patterns in previous studies on the oral and written language of children. But the data also indicated that although the frequency of
occurrence of the less common patterns was rare and fluctuating, relatively more of these rare patterns were found in the Readers.

The kinds and functions of constructions resulting from sentence-combining transformations which occurred with highest frequencies in the Readers were similar to the kinds and functions of constructions in the Guide. The kinds of constructions which occurred frequently in the Guide and in the Readers were limited to a few types. The same types of constructions performed mainly the same grammatical functions in the Guide and in the Readers although certain sub-types of constructions, which were used frequently in the Readers, seldom occurred in the Guide.

The occurrence of rare constructions in the Readers also indicates the use of language structures which are unfamiliar to the reader at the initial stage of learning to read. The greater length of the T-units in the Readers reflects more complexity of structures in the reading passage compared to the structures in the oral language materials.
This study was not concerned with determining the relationship of comprehension to the degree of similarity of the language structures in the oral language materials and structures in the reading passage. However, the findings suggest that the oral language background of the Filipino pupil when he begins to read English seems inadequate to cope with the difficulty level of the beginning readers.

The grammatical complexity of the reading passage increases the difficulty in comprehension of the reader who lacks the necessary oral proficiency as basis for recognizing and interpreting the written language. Unfamiliar language structures also pose difficulty for the reader who has to learn the grammatical meanings of the structures as he recognizes the printed symbols. This additional task slows down progress in better comprehension and recognition.

More evidence drawn from investigations in second language classroom situations are necessary to determine the suitability of the reading materials in terms of the language structures taught in the oral language program.

RECOMMENDATIONS FOR FURTHER RESEARCH

This study has raised several problems for research especially in the teaching of reading to pupils learning English as a second language. More investigations related to structural control in reading passages will provide useful guidelines for curriculum writers in evolving more effective reading materials at the beginning stage. The following are
suggestions for further research:

1. A follow-up study in a second language classroom situation to compare comprehension between reading passages consisting of commonly used structures which were found in the Guide and in the Readers, and reading passages consisting of rarely used language structures which occurred only in the Readers but not in the Guide.

2. A research designed to compare comprehension between reading passages consisting of acceptable language structures which were used in actual oral communication situations by children who speak English as a second language, and reading passages consisting of language structures which did not occur in the oral speech of these children but which are commonly used by native speakers of English.

3. A study to compare comprehension between reading passages derived from single base transformations or transformations within a single sentence, and comprehension of reading passages derived from sentence-combining transformations.

4. A research designed to establish a hierarchy of difficulty in comprehension of the varied kinds of constructions produced by sentence-combining transformations.

5. A quantitative study to determine the relationship of comprehension to the number of sentence-combining transformations per sentence.


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LINGUISTIC ANALYSIS WORKSHEET

I. Book Page Sentence No. No. of Words

Text: "Look at all the children!" said Oscar.

II. Category of T-Unit

III. No. of T-Unit in Sentence T-Unit No. No. of Words in T-Unit

Kinds of Noun Clauses: Direct Discourse (included) Saying
Asking; direct discourse (not included) Saying Asking

IV. Structural Pattern of T-Unit:

<table>
<thead>
<tr>
<th>Statements-Kernel</th>
<th>Questions - Derived</th>
<th>Statements-Derived</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Yes-No&quot;</td>
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<td>Passive</td>
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<td>Wh- as</td>
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<td>Negative</td>
</tr>
<tr>
<td>subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modifier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adverbial</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

V. No. of Sentence - Combining Transformations

A. Nominalizations:

Kinds Functions

Headed
Nouns + Modifiers

Subj Direct Obj of Prep Indirect Obj Subj Obj Subj. Object Appositive

Non-Headed
G

B. Adverbial Structures:
Adverbial Clauses and Near-Clauses

1. Time
2. Place
3. Cause
4. Condition
5. Comparison
6. Complement Of Adjective
7. Adverbial Infinitive
8. Sentence Modifiers

C. Coordinate Structures:

1. Nominals
2. Predicates
3. Modifiers