A PROPOSAL FOR THE STUDY OF THE INFLUENCE
OF LINGUISTICS ON GROWTH IN WRITTEN COMPOSITION
AT KINGMAN HIGH SCHOOL U.S.D. #331

by §189

ERNEST E. STARK
B.S.E., Kansas State Teachers College 1966

——

A MASTER'S REPORT

Submitted in Partial Fulfillment of the
Requirements for the Degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1970

[Signature]
Major Professor
TABLE OF CONTENTS

LIST OF TABLES........................................................................................................... iii

Chapter

1. BACKGROUND FOR THE STUDY ......................................................... 1
   Introduction................................................................................................. 1
   Statement of Purpose............................................................................... 5
   Justification for the Study................................................................. 5
   Definition of Terms........................................................................... 6
   Limitation of the Study................................................................. 7
   Summary.............................................................................................. 8

2. A REVIEW OF RELATED LITERATURE........................................... 9
   Introduction................................................................................................. 9
   Structurally-Oriented Literature.................................................. 9
   Transformationally-Oriented Literature................................. 15
   Summary.............................................................................................. 18

3. METHODS, MATERIALS, AND PROCEDURES.................................. 20
   Population................................................................................................. 20
   Samples................................................................................................. 20
   Design...................................................................................................... 21
   Variables................................................................................................. 24
   Testing Program...................................................................................... 26

BIBLIOGRAPHY.......................................................................................................... 28
# List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. S.T.E.P. Test</td>
<td>13</td>
</tr>
<tr>
<td>2. Modern Language Aptitude Test</td>
<td>14</td>
</tr>
<tr>
<td>3. Test for Punctuation</td>
<td>15</td>
</tr>
<tr>
<td>4. Mean Gain Scores</td>
<td>16</td>
</tr>
<tr>
<td>5. Data Reported by Bateman and Zidonis</td>
<td>18</td>
</tr>
</tbody>
</table>
Chapter 1

BACKGROUND FOR THE STUDY

Introduction

One of the most controversial topics among English teachers today is linguistics. One has often found the lines in this pedagogical dispute drawn between those who advocate that linguistics is a panacea for solving all the problems traditionally associated with the teaching of English and those who contend that linguistics is a conspiracy against the English language, great works of literature, and the moral values of our society.

The term "linguistics" has been a very broad and ambiguous term. In reality it referred to a process rather than a subject matter, but for the sake of clarity the author restricted its reference to instruction in analysis and application of grammar.

In order to develop an adequate background for the study, a brief survey of the development of instruction in English grammar is necessary.

Prior to 1700 there were few books written on the subject of the structure of English. Eighteenth-century Englishmen had just recently rediscovered the classics of Greece and Rome. When the eighteenth-century Englishman compared his language with that of Cicero and Virgil, he
was saddened and sometimes appalled. His language seemed to have developed without structure or logic. In short, the English language seemed to be a vulgarized language lacking the beauty and sophistication of structure that he found in Latin. In an attempt to give his language the sophistication he desired, the eighteenth-century Englishman turned to the most perfect example he had at hand, Latin. As a result, early English grammarians sought to analyze the English language by using structural terms adopted from the study of Latin.

Early English grammarians provided a set of rules derived from a study of the structure of Latin that they felt established an absolute standard of correctness for analyzing and applying the grammar of English to the spoken and written word. Grammar instruction in the American school was a direct descendent of the work done by the eighteenth-century English grammarians with little or no modification having taken place. The development of grammar texts in America was along prescriptive lines. Most of them set out to state precisely how to analyze correctly the structure of English, and most of them laid down rules by which English could be correctly spoken or written. Thus, the teaching of English grammar in America became an instrument expected to assist the student in writing acceptable English by prescribing a set of rules.

Formal study of traditional grammar has held a position of emphasis in American education on the grounds that a
prescribed knowledge of grammar would enable the student to express himself proficiently in acceptable written English. However, Postman (13) stated that evidence indicated training in formal grammar did not transfer to any significant extent to writing or recognizing acceptable English, and in general, evidence revealed a discouraging lack of relationship between grammatical knowledge and better utilization of written expressional skills. Searles and Carlsen (15) concluded that the old presentation of grammatical terminology is sterile and profitless, and research consistently concluded that there is no evidence to substantiate the continued emphasis on formal instruction in grammar.

The linguistic approach to the study of grammar has been slow in making its appearance in American education. During this century the principles, assumptions, and procedures of linguistics have been developed. Linguistics confined itself to an observation and description of the English language as it exists rather than formulation of prescriptive definitions, rules, and value judgments leading to correctness.

In 1952 C. C. Fries published his book *The Structure of English: An Introduction to the Construction of English Sentences*. This book was an objective observation and description of the structure of English sentences from viewing the position and relationship between words within a sentence; this approach was called syntax. In 1953
Trager and Smith published *An Outline of English Structure*. This approach to grammatical analysis attempted to observe and describe the phonology or sound system of the English language.

It was soon found that the approaches advocated within these two books could be combined into a body of material to form a basis for instruction in grammar. This combined concept formed the core of structural linguistics.

Since the development of the structural linguistic approach to the study of grammar, generative or transformational grammar has appeared. Where structural grammar is content to observe and describe the structural characteristics of the different kinds of sentences in the English language, generative or transformational grammar is concerned with an abstract set of statements which explain how an infinite number of sentences can be produced from a limited list of basic sentence patterns.

In tracing briefly the development of the linguistic approach to the study of grammar it is necessary to point out that two major divisions exist: structural and transformational-generative.

Roberts (14) noted that there seemed to be a widespread hope that the teaching of grammar according to linguistic principles would lead directly to a great improvement in written expression, a falling off of comma faults, and a decrease in fragmented sentences and other such errors.
Thus, many laymen and educators have the same expectations for a linguistic approach to the study of grammar as they once had for a traditional prescriptive approach to the study of grammar.

Statement of Purpose

If instruction in grammar results in an improvement of written expression through developing competence to construct acceptable grammatically complex sentences, will there be any significant difference between those students taught exclusively a traditional program of prescriptive grammar and those students taught exclusively a linguistic-oriented program of grammar?

Justification for the Study

Gleason (4) stated that the study of grammar might be justified if it could in any way contribute to the composing abilities of the student. In seeking to provide justification for the study the author believed that it was necessary to establish some expectation that a study of a linguistics-oriented program might in some way contribute to the composing abilities of the student.

Warfel (17) stated that the scientific basis of structural linguistics is the doctrine that language is a signaling system. In speech the signals are sounds, gestures, and vocal qualities. In writing the signals are marks and the qualifications put on them by different sizes and shapes.
The student's known capacity to speak can be utilized in making the crossover into writing a natural one.

Allen (1) stated that linguistic knowledge of the structure of the sentence can be useful as a common ground when the teacher is helping a student revise his writing. Structural grammar begins with the features of form and structure, then proceeds to use or function, and only then does it consider meaning. It gives us a prime understanding of the distinctive sound units in English, including features of stress, pitch, and juncture, and it recognizes a hierarchy of relationships within a written sentence. Transformational grammar considers all English sentences as capable of being generated from a few basic types through explicit transformational rules.

**Definition of Terms**

Before further consideration can be given to the study a definition of major terms is necessary.

**Grammatically complex sentences.** Grammatically complex sentences are those sentences which are expansions of one of the basic seven sentence patterns. When broken down into a T-unit, a grammatically complex sentence will contain more than a simple clause or basic sentence pattern.

**Traditional program of prescriptive grammar.** A traditional program of prescriptive grammar was defined as a study of grammar centered around memorization and practice in analyzing and applying predetermined definitions and rules
of grammar as contained in Warriner and Griffith (18). The primary teaching method employed in this program is direct teacher influence consisting of lecturing, giving direction, and critical assessment of repeated exercises in applying predetermined rules to the material presented.

Linguistic-oriented program of grammar. This program in grammar was defined as a program based on presenting to the students an integrated concept of structural and transformational-generative grammar analysis. The material to be used in this program was developed by the Project English Curriculum Center at Northern Illinois University, DeKalb, Illinois (10,12) and enlarged upon by Maclich and Seat (8). The primary teaching method employed in this program is an inductive presentation of the material requiring teacher-pupil interaction which will lead the students to exercise their own observations in an inquiry situation or a problem-solving situation.

Limitations of the Study

Because of the time and financial factors involved, the scope of this study is restricted to a very small but easily accessible population. Inferences made from this study have only a narrow and restricted application, and implications having a larger or more general application are not possible.

There are two different teaching methods employed in this study, a prescriptive or teacher-oriented method and an inductive or student-oriented method. The influence of these
different teaching methods upon the dependent variables will affect the final outcome of this study to some degree, and this influence cannot be overlooked.

The study is restricted to 90 instructional days. This short time period may not be of adequate duration to permit the two programs of grammar study to develop their approach fully and achieve their maximum effect.

Summary

The old traditional prescriptive programs of study of English have seemingly failed to accomplish any carry-over that enabled the students to improve their skills in written expression, and the new linguistic approaches to the study of grammar have not had sufficient time to present a case that would justify any claim that a linguistic approach to the study of English grammar will result in improvement of the student's ability to deal with grammatical problems of written composition. This study seeks to determine if participation in a linguistic-oriented approach to the study of English grammar will result in a higher degree of competence when handling grammatically complex sentences than participation in a traditional prescriptive approach to the study of English grammar.
Chapter 2

A REVIEW OF RELATED LITERATURE

Introduction

A large majority of the literature available on the relationship between instruction in linguistics and improvement in composition has not concerned itself with a linguistically-oriented program as defined by the author. Most research has concerned itself with either a structural linguistic approach to grammar instruction or a transformational-generative approach to grammar instruction.

In conducting a review of the related research the author reviewed the literature concerned with a structural approach to grammar instruction and then progressed to the literature concerned with a transformational-generative approach to grammar instruction.

Structurally-Oriented Literature

O’Donnell (11) hypothesized that there was a statistically significant relationship between ability in written composition and an awareness of structural relationships in English, and the correlation between ability in written composition and the ability to verbalize knowledge of rules and terminology contained in traditional English grammar was significantly different from this relationship. O’Donnell used 201 college freshmen as samples in a study extending
over a two year period. Post-test and pre-test consisted of the Sequential Test of Educational Progress, the Iowa Grammar Information Test, and A Test of Recognition of Structural Relationships, a test developed by O'Donnell.

O'Donnell reported that the degree of correlation between ability in written composition and an awareness of syntactic structure was not sufficiently different from the degree of correlation between ability in written composition and a knowledge of traditional rules and terminology. He concluded that the degree of correlation was not sufficient to assume that either a knowledge of traditional grammar or an awareness of basic structural relationships in English will be regularly accompanied by excellence in written composition.

Crews (3) asked, "Will fourth grade children who receive instruction in sector analysis 45 minutes a day, three days per week from October to May, write sentences showing a greater variety in structure than a comparable group who receive instruction in traditional grammar?"

Five experimental and five control classes were randomly selected from a population of rural, suburban, and urban children of Florida. The control group received instruction in grammar materials that were essentially traditional in their approach. The experimental groups received a linguistic program as presented in Robert Allen's A Linguistic Approach to Writing: Discovery 1 and Discovery 2. This program was essentially structural and tegmatic in nature, but used what was useful from transformational grammar.
Pre- and post-writing samples were analyzed for a score on a mean T-unit length and for variety in structure. It was reported that when comparing changes in variety in the structure of sentences in writing samples of all children in the experimental group with those of the control group, the changes reached significance at the < .001 level of confidence favoring the experimental group. Crews concluded that fourth grade children seem able to put into practical use in sentence construction the understanding derived from grammar study that focuses on identification and use of specific basic sentence sectors when this study is related to language in everyday life. Providing fourth grade children with numerous and varied opportunities for written expression seems to result in some improvement in written sentence construction no matter what approach to grammar is taken.

Smith and Sustakoski (16) hypothesized that a knowledge of scientific analysis of the English language will lead to a program which can handle the traditional problems of English composition better than a program based on a traditional, unscientific analysis of language, and pedagogical devices being equal, presentation of a linguistic derived model of English in the classroom will enable students to reach four major goals of instruction better than will a presentation of an intuitive, non-linguistic model of English. The four major goals of instruction listed in this report were:

1. Knowledge of the structure of oral and written English
2. Knowledge of the historical development of these situations

3. Ability to use this descriptive and historical information within a framework of American Standard Dialect

4. Develop insight into the workings of oral and written language as a media of communication

Control and experimental groups were selected and equally paired by making extensive use of intelligence data combined with socio-economic data. The population consisted of students in grades 9 and 11, and the study ran for two years.

Teaching units for the experimental group were roughly parallel to the chapters taught by the teachers of the control group using Harper's Handbook of Composition. The experimental group was taught from units developed by the researchers. These units were some of the first based on an integrated structural linguistic analysis of the English language. It was innovative in its analysis of morphonics, morphemics, and the applied areas of spelling and punctuation. These units incorporated Gleason's Introduction to Descriptive Linguistics, Francis' Structure of American English, Hockett's A Course in Modern Linguistics, and Roberts' The Patterns of English. The approach to punctuation involved intonation and pauses and their relationship to written punctuation.

The criterion consisted of pre- and post-testing. Among the tests in the battery were the Sequential Test for Educational Progress (levels 1 and 3), the Modern Language Aptitude Test (test 3), and a test for punctuation developed by the researchers.
The following tables are the published test results from this study.

**Table 1**

**S.T.E.P. TEST**

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Anal. Co-Var.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>9th Mean Test Scores</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exp.</td>
<td>30.2</td>
<td>40.5</td>
<td>5.3</td>
</tr>
<tr>
<td>Con.</td>
<td>29.9</td>
<td>41.9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Anal. Co-Var.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>11th Mean Test Scores</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exp.</td>
<td>33.4</td>
<td>42.3</td>
<td>.02</td>
</tr>
<tr>
<td>Con.</td>
<td>32.0</td>
<td>41.9</td>
<td></td>
</tr>
</tbody>
</table>

In relation to the S.T.E.P. test, a test described as a test of writing which includes questions of usage and style, the control group at the 9th grade level showed slightly more improvement than the experimental group. At the 11th grade level the difference between the experimental group and the control group was insignificant.
Table 2
MODERN LANGUAGE APTITUDE TEST

<table>
<thead>
<tr>
<th></th>
<th>9th Mean Test Scores</th>
<th></th>
<th>11th Mean Test Scores</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp.</td>
<td>43.9</td>
<td>58.9</td>
<td>29.5</td>
<td>53.7</td>
<td>65.5</td>
</tr>
<tr>
<td>Con.</td>
<td>42.4</td>
<td>50.8</td>
<td></td>
<td>56.7</td>
<td>62.0</td>
</tr>
</tbody>
</table>

The data reported in relation to the Modern Language Aptitude Test, a test designed to evaluate sensitivity to language structure as a correlation to aptitude for foreign language learning, showed the experimental groups at both the 9th and 11th grade level demonstrated considerably more growth than the control groups.

In relation to the test on punctuation, a test developed by the researchers, the differences demonstrated at either the 9th and 11th grade level were not significant enough to draw a meaningful conclusion.
### Table 3

**TEST FOR PUNCTUATION**

<table>
<thead>
<tr>
<th></th>
<th>9th Mean Test Scores</th>
<th></th>
<th>11th Mean Test Scores</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp.</td>
<td>78.6</td>
<td>83.1</td>
<td>5.7</td>
<td>84.5</td>
</tr>
<tr>
<td>Con.</td>
<td>70.2</td>
<td>74.0</td>
<td></td>
<td>87.0</td>
</tr>
</tbody>
</table>

**Transformationally-Oriented Literature**

Mellon (9) hypothesized that normal growth of syntactic fluency could be enhanced by special treatment artificially enriching the student's language experiences. This treatment was described as transformational sentence combining.

Mellon conducted his research at the 7th grade level in an experiment of one month's duration. The experimental group studied sentence-combining problems and consisted of 100 students. The control group consisted of 100 students and studied traditional parsing exercises. A placebo group was introduced consisting of 47 students, and this group received no instruction in grammar, but it received extra instruction in literature and composition. The ratio of boys and girls involved in this study was equal and the
participating schools were chosen to represent service to clientele from upper-middle to lower-middle economic levels in urban, suburban, and private education.

Samples of before and after writing were used to determine syntactic fluency. Subjects wrote nine compositions at each test time. The nine topics were represented in a parallel "A" and "B" form. Classes which received one form of the test at pre-test time were given the other form at post-test time. Writing samples at each test time were broken into T-units (terminal grammatical units). From the samples frequency counts were made of the dependent variables.

The following table presents the results as reported by the researchers.

<table>
<thead>
<tr>
<th>Table 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN GAIN SCORES</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Exp.</th>
<th>Con.</th>
<th>Plac.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean words per T-unit</td>
<td>1.27</td>
<td>0.26</td>
<td>(not given)</td>
</tr>
<tr>
<td>Nominal clauses per 100 T-units</td>
<td>3.53</td>
<td>-3.01</td>
<td>0.86</td>
</tr>
<tr>
<td>Relative clauses per 100 T-units</td>
<td>6.21</td>
<td>3.92</td>
<td>0.89</td>
</tr>
<tr>
<td>Relative phrases per 100 T-units</td>
<td>19.72</td>
<td>9.43</td>
<td>14.80</td>
</tr>
<tr>
<td>Relative words per 100 T-units</td>
<td>31.95</td>
<td>14.39</td>
<td>13.94</td>
</tr>
<tr>
<td>Embedded kernel sentences per 100 T-units</td>
<td>64.93</td>
<td>23.67</td>
<td>30.24</td>
</tr>
<tr>
<td>Cluster frequency</td>
<td>0.10</td>
<td>-0.01</td>
<td>0.04</td>
</tr>
<tr>
<td>Embedding frequency</td>
<td>12.09</td>
<td>4.84</td>
<td>3.49</td>
</tr>
<tr>
<td>Depth level</td>
<td>0.18</td>
<td>0.04</td>
<td>0.07</td>
</tr>
</tbody>
</table>
As can be seen from the reported data, the experimental group showed significantly more mean gain than either the control or placebo group. However, the length of time involved in the study, one month, gives rise to serious questions about the reliability of the data and its implications.

Bateman and Zidonis (2) conducted a two-year study with 9th and then 10th grade students of the University School of Ohio State University. The researchers sought to study the effect of transformational grammar on the writing of 9th and 10th grade students.

Each class group studied what would have been considered the regular curriculum of the course, except that the experimental group studied a specially prepared investigation of generative grammar.

Written compositions were collected during the first three months and the last three months of the study period from both groups. One piece of writing was collected from each student approximately every two weeks during this period.

A structural complexity score was obtained from each sentence written. The researchers developed 46 grammatical instruments to trace the development of complex sentences back to the kernel sentences from which it was transformed. The number of grammatical operations that took place in the development of any sentence became the structural complexity score of that sentence.

The researchers also determined the proportion of well-formed sentences by dividing the total number of sentences
into the number of sentences that were intuitively acceptable and derived from transformational-generative rules.

Table 5
DATA REPORTED BY BATEMAN AND ZIDONIS

<table>
<thead>
<tr>
<th></th>
<th>Average Structural Complexity Score</th>
<th></th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
<td></td>
</tr>
<tr>
<td>Exp.</td>
<td>7.310</td>
<td>16.625</td>
<td>9.315</td>
</tr>
<tr>
<td>Con.</td>
<td>7.009</td>
<td>10.802</td>
<td>3.793</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Change in Proportion of Well-Formed Sentences</th>
<th></th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
<td></td>
</tr>
<tr>
<td>Exp.</td>
<td>.559</td>
<td>.877</td>
<td>.318</td>
</tr>
<tr>
<td>Con.</td>
<td>.595</td>
<td>.630</td>
<td>.035</td>
</tr>
</tbody>
</table>

From the data supplied in this study it may be inferred that study or investigation of generative grammar on the part of the student can lead to development of the ability to construct well-formed structurally complex sentences.

Summary
Research has suggested that linguistic grammar programs of a purely structural nature have not shown any significantly positive qualities when compared to traditional grammar programs. Linguistic grammar programs of a transformational-generative nature tend to demonstrate a more
positive relationship to growth in written composition when compared to traditional programs of prescriptive grammar.

However, there has been no research conducted on the effects of a combined program of structural and transformational approaches to grammar and its relationship to growth in written composition. Allen (1) suggested that structural and transformational grammar, working not to the exclusion of each other, but as complements of each other provide a sound and much more precise way of dealing with English grammar. It was the effect of a combined structural and transformational approach to grammar and its relationship to growth in written composition that the author sought to investigate.
Chapter 3

METHODS, MATERIALS, AND PROCEDURES

Population

The population involved in this research consists of the 11th grade class at Kingman High School U.S.D. #331, Kingman, Kansas. The number of students in the population totals 118. Fifty-six per cent of the population is male and 44 per cent is female. Forty-two per cent of the population reside in farm dwellings outside the city limits of the city. The majority of the parents of the students in the population are involved in agriculturally related jobs.

The population has not been exposed to a formal study of grammar of a prescriptive or traditional nature since their 9th grade year. However, during their 10th grade year they had been exposed to an informal study of prescriptive grammar. None of the population has been exposed to a linguistic-oriented approach to the study of grammar.

Samples

A total of 60 students are to be selected by use of a table of random numbers from the population to serve as the samples. Selection from the table is to be made in groups of three. The first selection will be assigned to the control group, the second selection will be assigned to the
experimental group titled "linguistic-oriented", and the third selection will be assigned to the experimental group titled "placebo". This process will be repeated until the control group and the two experimental groups total 20 students each.

Design

The study is designed to run from September 1, 1970 until January 18, 1971 and consist of approximately 90 instructional days.

All of the teachers participating in the study are volunteers.

The teacher assigned to the control group is the holder of a B.S.E. with 48 credit hours in the language arts and 38 years experience as a teacher of English.

The teacher assigned to the experimental group is a holder of an M.S.E. with 45 hours in the language arts and 5 years of experience as a teacher of English. This teacher has 6 credit hours in linguistic study and had attempted to teach a linguistic approach to the study of grammar previously.

The teacher assigned to the placebo experimental group is a holder of an M.S.E. with 52 hours in the language arts and 4 years experience as a teacher of English.

The control group is designed to meet one hour, five days per week. The course of study for this group consists of a traditional approach to the study of grammar as contained
in Warriner and Griffith (18). The method of instruction to be employed by the teacher of this group consists of reading and/or lecturing on the chapters of the text in chronological sequence three days per week. These readings and lectures will be followed by having the students complete exercises in the text through applying prescribed notional definitions or rules to analysis of sentence structure or correction of grammatical errors in written sentences contained therein. Two days per week are to be given to writing on assigned theme topics, the topics being the same for the control and experimental groups. The control group’s papers are to be checked and returned with each grammatical error marked and a notation made of the prescribed rule that had been violated.

The linguistic-oriented experimental group is designed to meet one hour, five days per week. The course of study for this group consists entirely of a linguistic-oriented approach to the study of grammar. There are very few linguistic-oriented texts available for purchase, and the author felt that on the whole those available were not suited for this experiment. The author selected a series of teaching units developed by the Project English Curriculum Center at Northern Illinois University, DeKalb, Illinois (8,10,12). These units present an integrated concept of structural and transformational grammar study. The following is a brief breakdown of the units to be used in the linguistic-oriented experimental group:
(Phonology)
Section I--a study of speech sounds and system for representation.
Section II--a study of the relationship of pitch, stress, and juncture to written punctuation.

(Morphology)
Section I--designed to assist the understanding of the process of defining terms, to show that language involves a system of sounds and symbols.
Section II--designed to help understand the concept of form and position classes.

(Transformational grammar)
Section I--defines and illustrates transformational grammar and compares it to structural and traditional grammar.
Section II--defines and illustrates phrase-structure rules and transformations.
Section III--describes and illustrates single and double transformations.
Section IV--an approach for the use of transformational grammar in an analysis of written composition.

The methodology involved in the teaching of these units is to be essentially inductive inquiry. The burden for developing definitions and rules for grammatical analysis rests with the student. The teacher is to act as an assistant to the students, a resource person, and a discussion stimulator. Each student in this group will write two essays per week on the same topic given to the control group. These essays are to be reviewed by the teacher first and then certain parts of individual essays selected for presentation to the class for discussion of the errors contained within and their relationships to the particular ideas under investigation in the unit.

The course of study for the placebo experimental group is structured to exclude any organized or formal study of
grammar. The class is to meet one hour, five days per week. Three days each week are to be given to reading articles in newspapers and magazines and short stories in various anthologies. Two days each week are to be given to writing essays on personal reactions to the selected essays. These essays are to be reviewed by the teacher and certain essays selected for presentation to the class for discussion in relation to style, content, and logic.

Variables

The independent variable to be controlled in this research is the effect of a traditional approach of prescriptive study of grammar and its relation to growth in composition.

The independent variable to be studied in this experiment is the effect of a linguistic-oriented approach to the study of grammar upon growth in composition skills.

The dependent variable is growth and maturity in composition skills as demonstrated by the ability to construct acceptable grammatically complex sentences. As defined earlier, a grammatically complex sentence is one which is expanded beyond a basic sentence pattern or contains more than a simple clause.

In determining the complexity of a sentence it is necessary to reach an understanding of the concept of the T-unit. Hunt (5) and others (3,9) conclude that the T-unit provides the best index of maturity in writing yet devised. T-units are simply the shortest segments which it would be grammatically
allowable to write with a capital letter at one end and a period or question mark at the other, leaving no fragments as residue. T-units containing only one clause would be like a simple sentence, and T-units containing more than one clause would all be like complex sentences. There would be no compound sentences. Hunt (5) stated that the number of words per single-clause T-unit got larger with maturity in writing, and the proportion of single-clause T-units to a multi-clause T-units got smaller. The following example shows a compound-complex sentence broken into one single-clause T-unit and one multi-clause T-unit.

Socrates was a man of virtue, and he died because he would not repudiate his principles.

Crews (3) stated that the ability to handle mobile adverbs within a sentence structure was an indication of maturity in composition. A mobile adverb is an adverb that has an -ly suffix and can occupy a position at the front, middle, or end of a sentence.

Both Crews (3) and Mellon (9) stated that the ability to expand basic sentence patterns by use of prepositional phrases was an indication of maturity in composition. A prepositional phrase consists of a preposition (on, from, to, etc.) plus a noun or phrase and is positioned within the sentence structure so as to modify a noun or adverbial.

Another index of maturity in composition as indicated by Crews (3) and others (5, 9) is the ability to expand a noun cluster by use of a relative clause. A relative clause is
one of the basic sentence patterns with the word "who", "which", "that", or "whom" occurring in place of the noun or with the word "whose" occurring in the place of a determiner.

In order to develop a multi-clause T-unit as described by Hunt (5) the student must be adept in handling subordinate clauses in expanding the basic sentence patterns. Thus, Hunt (5) and others (3, 9) concluded that subordinate clauses were an indication of composition maturity. A subordinate clause is a basic sentence pattern preceded by a word like "because", "if", "where", "while", "unless", "untill", "after", "before", and "since". These words are termed subordinators.

Crews (3) and Mellon (9) stated that the number of modifiers in the sentences or T-units expanded beyond one word or one word and a determiner is an indication of ability to handle grammatically complex sentences.

**Testing Program**

Pre- and post-experience writing samples are to be collected from each group. During the first two weeks each student is to be assigned to write four essays on topics that are the same for all groups. Twenty-five T-units of written composition are to be collected from each essay by excluding the first and last 10 T-units and selecting the sample from the remaining units. Thus, a sample consisting of 100 T-units is to be collected from each student involved in the experiment.
Post-experience writing samples are to be collected in the same manner as pre-experience writing samples.

Both the pre- and post-experience samples are to be collected by two junior high school and two high school English teachers not involved immediately with the project. These four teachers will have spent a total of six hours with the author in preparation for gathering of the data.

Analysis of Data

The first step in analysis of data is to determine a mean score on the following variables from the pre-experience writing samples of each group:

1. Frequency of single-clause units per 100 T-units
2. Mean words per single-clause unit
3. Frequency of mobile adverbs per 100 T-units
4. Frequency of prepositional phrases per 100 T-units
5. Frequency of relative clauses per 100 T-units
6. Frequency of subordinate clauses per 100 T-units
7. Frequency of noun clauses where the modifiers are expanded beyond one word or one word and a determiner per 100 T-units
8. Proportion of single-clause units to multi-clause units per 100 T-units

The same procedure as outlined above will be followed in arriving at a mean score on the variables for each group from the post-experience writing samples.

Using the data gathered from the analysis of pre- and post-experience writing samples a mean-gain score is to be computed as outlined by Mellon (9). The mean-gain score will be an attempt to indicate what, if any, relationship exists among the variables.
1. Allen, Harold B.
   Proceedings of the Spring Institute, 1963. Language,
   Linguistics, and School Programs, N.C.T.E. Champaign,

2. Bateman, Donald R. and Frank Zidonis,
   The Effect of a Study of Transformational Grammar
   on the Writing of 9th and 10th Graders. National
   Council of Teachers of English Report No. 6. Ohio
   State University, 1966.

3. Crews, Ruthellen,
   The Influence of Linguistically-Oriented Techniques
   on the English Sentence Structure and Reading Com-
   prehension of Fourth Grade Students. University of
   Florida Cooperative Research No. 7-D-336, Gainsville,

   Linguistics and English Grammar. New York: Holt,

5. Hunt, Kellogg W.
   Differences in Grammatical Structures Written at
   Three Grade Levels. The Structures to be Analyzed
   by Transformational Methods. Florida State Uni-
   versity Cooperative Research Project No. 1993,

6. Ives, Sumner,
   "Linguistics in the Classroom," College English.
   Vol. 17 (December, 1955), 165-172.

7. Levin, Samuel R.
   "Comparing Traditional and Structural Grammar."

8. Maclish, Andrew and William R. Seat III,
   Materials and Methods for Teaching Structural and
   Generative Grammar to High School Students and Their
   Teacher. Northern Illinois University Cooperative
   Research Project No. H-144, DeKalb, Illinois,
   August, 1967.
9. Mellon, John C.


11. O'Donnell, Roy C.


13. Postman, Neil and Charles Weingartner,

14. Roberts, Paul,

15. Searles, John R. and G. Robert Carlsen,

16. Smith, Henery Lee Jr. and Henery J. Sustakoski,

17. Warfel, Harry R.

18. Warriner, John C. and Francis Griffith,
A PROPOSAL FOR THE STUDY OF THE INFLUENCE
OF LINGUISTICS ON GROWTH IN WRITTEN COMPOSITION
AT KINGMAN HIGH SCHOOL U.S.D. #331

by

ERNEST E. STARK
B.S.E., Kansas State Teachers College 1966

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the
requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1970
Of concern in this report was the question: If instruction in grammar results in improvement of written expression through developing competence to construct grammatically complex sentences, will there be any significant difference between those students taught exclusively a traditional program of prescriptive grammar and those students taught exclusively a linguistic-oriented program of grammar.

Grammatically complex sentences were defined as sentences which when broken into T-units will contain more than a simple clause or basic sentence pattern. A traditional program of prescriptive grammar was defined as a study of grammar centered around memorization and practice in analyzing and applying predetermined rules and definitions. A linguistic-oriented program of grammar was defined as a program based on presenting to students an integrated concept of structural and transformational-generative grammar as developed by the Project English Curriculum Center at Northern Illinois University and enlarged upon by Maclich and Seat.

A review of the literature suggested that grammar programs of a purely structural nature have not shown significantly positive benefits when compared to traditional grammar programs. Linguistic programs of a transformational-generative nature tend to demonstrate a more positive relationship to growth in written composition. However, there has been no research conducted on the results of a combined program of structural and transformational-generative grammar and its relationship to growth in written composition.
This report proposed a study of the question using the 11th grade class at Kingman High School U.S.D. #331. A hypothetical design was constructed which would place a total of 60 students selected by random numbers into either a control group, an experimental group titled "linguistic-oriented", or an experimental group titled "placebo". The control group would study exclusively a traditional grammar program, the linguistic-oriented group would study an integrated linguistic program, and the placebo group would exclude any organized or formal study of grammar. The study would be 90 instructional days in length.

The independent variable to be controlled would be the effect of a traditional study of prescriptive grammar on growth in written composition. The independent variable to be studied would be the effect of a linguistic-oriented study of grammar on growth in written composition. The dependent variable would be growth and maturity in composition skills as demonstrated by the ability to construct acceptable grammatically complex sentences.

Testing would consist of two samples of 100 T-units each from pre- and post-experience writing samples from each student involved in the study. A frequency count would be made of the following:

1. Single-clause units per 100 T-units
2. Mobile Adverbs per 100 T-units
3. Prepositional phrases per 100 T-units
4. Relative clauses per 100 T-units
5. Subordinate clauses per 100 T-units
6. Noun clauses where modifiers are expanded beyond one word and a determinant per 100 T-units
7. Proportion of single-clause units to multi-clause units per 100 T-units
8. Mean words per 100 T-units

Using the data gathered from analysis of pre- and post-experience writing samples a mean-gain score would be computed. The mean-gain score would be an attempt to indicate what, if any, relationship exists among the variables.