CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

THE EFFECT OF TWO DIFFERING ENGLISH PROGRAMS
ON THIRD GRADE CHILDREN'S SYNTACTIC MATURITY

A thesis submitted in partial satisfaction of the requirements for the degree of Master of Arts in Education

by

Petronella K. Jacobsson

June, 1974
The thesis of Petronella K. Jacobsson is approved:

__________________________
Committee Chairman

California State University, Northridge
June, 1974
To my loving parents

and

My ever encouraging Angelo
ACKNOWLEDGMENTS

I would like to express my gratitude to Dr. Gwenneth Rae for her initial encouragement to begin this study.

My most sincere appreciation is extended to my Chairman, Dr. Raymond Jung, for his patience, guidance and understanding.

Dr. Susan Wasserman is to be commended for her advice which led into further and insightful avenues of research.

Appreciation is sincerely rendered to Dr. Vicki Sharp for her statistical expertise and criticism.

I wish to thank Mrs. Saundra Elsky without whom this study could not have taken place.

Gratitude is also expressed to Mr. Bernard Holding and Mrs. Evelyn Mrgudic for their cooperation and support.

A special note of thanks is extended to Mary McCullum for her formal comments regarding style.
The poorest human in the world is he who is limited to his own experience, he who does not have access to literature.

Sara Lundsteen
1972:512
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEDICATION</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>x</td>
</tr>
<tr>
<td><strong>Chapter</strong></td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>The Problem</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>3</td>
</tr>
<tr>
<td>Limitation of the Problem</td>
<td>4</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>5</td>
</tr>
<tr>
<td>Rationale</td>
<td>5</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>6</td>
</tr>
<tr>
<td>Summary</td>
<td>7</td>
</tr>
<tr>
<td>II. REVIEW OF THE LITERATURE</td>
<td>8</td>
</tr>
<tr>
<td>The T-Unit as a Measure of Syntactic Maturity</td>
<td>8</td>
</tr>
<tr>
<td>Techniques Employed for Lengthening the T-Unit</td>
<td>14</td>
</tr>
<tr>
<td>Audio-Lingual Drills</td>
<td>14</td>
</tr>
<tr>
<td>Written Drills</td>
<td>18</td>
</tr>
<tr>
<td>Literature as a Basis for Teaching English</td>
<td>22</td>
</tr>
<tr>
<td>Research Use of Literature</td>
<td>23</td>
</tr>
<tr>
<td>Use of the Nebraska Approach</td>
<td>29</td>
</tr>
<tr>
<td>Summary</td>
<td>32</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>Summary</td>
<td>34</td>
</tr>
<tr>
<td>III. DESIGN OF THE STUDY</td>
<td>35</td>
</tr>
<tr>
<td>Teaching Methodologies Employed</td>
<td>35</td>
</tr>
<tr>
<td>Introduction</td>
<td>35</td>
</tr>
<tr>
<td>The Control Group</td>
<td>36</td>
</tr>
<tr>
<td>The Experimental Group</td>
<td>39</td>
</tr>
<tr>
<td>Summary of the Two Methodologies-Differences</td>
<td>50</td>
</tr>
<tr>
<td>Instruments and Procedures</td>
<td>52</td>
</tr>
<tr>
<td>Design of the Investigation</td>
<td>52</td>
</tr>
<tr>
<td>Written Tasks</td>
<td>54</td>
</tr>
<tr>
<td>Identification of Data Sources, Population</td>
<td>55</td>
</tr>
<tr>
<td>Characteristics of Sample</td>
<td>55</td>
</tr>
<tr>
<td>Equating of Groups</td>
<td>56</td>
</tr>
<tr>
<td>Summary</td>
<td>58</td>
</tr>
<tr>
<td>IV. ANALYSIS OF DATA</td>
<td>59</td>
</tr>
<tr>
<td>Presentation of Data</td>
<td>59</td>
</tr>
<tr>
<td>Analysis of Data</td>
<td>61</td>
</tr>
<tr>
<td>Summary</td>
<td>63</td>
</tr>
<tr>
<td>V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS</td>
<td>64</td>
</tr>
<tr>
<td>Summary</td>
<td>64</td>
</tr>
<tr>
<td>Conclusions</td>
<td>64</td>
</tr>
<tr>
<td>Recommendations</td>
<td>65</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>67</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>74</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>A. Elementary School Units</td>
<td>75</td>
</tr>
<tr>
<td>B. Analysis of Pre- and Posttest</td>
<td>77</td>
</tr>
</tbody>
</table>
### LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Words Per T-Unit, Clauses Per T-Unit</td>
<td>13</td>
</tr>
<tr>
<td>Words Per Clause</td>
<td></td>
</tr>
<tr>
<td>2. Comparison of Mean IQ Scores</td>
<td>56</td>
</tr>
<tr>
<td>Experimental and Control Groups</td>
<td></td>
</tr>
<tr>
<td>3. Comparison of Mean Reading Scores</td>
<td>57</td>
</tr>
<tr>
<td>Experimental and Control Groups</td>
<td></td>
</tr>
<tr>
<td>4. Comparison of Pretreatment Mean Scores of Syntactic Maturity</td>
<td>57</td>
</tr>
<tr>
<td>Experimental and Control Groups</td>
<td></td>
</tr>
<tr>
<td>5. Comparison of Posttreatment Mean Scores of Syntactic Maturity</td>
<td>60</td>
</tr>
<tr>
<td>Experimental and Control Groups</td>
<td></td>
</tr>
<tr>
<td>6. Comparison by Grade Level of the</td>
<td>62</td>
</tr>
<tr>
<td>Experimental Group's Posttreatment Scores of Syntactic Maturity</td>
<td></td>
</tr>
<tr>
<td>Based on the Normative Data of Hunt and O'Donnell</td>
<td></td>
</tr>
</tbody>
</table>
ABSTRACT

THE EFFECT OF TWO DIFFERING ENGLISH PROGRAMS
ON THIRD GRADE CHILDREN'S SYNTACTIC MATURITY

by

Petronella K. Jacobsson

Master of Arts in Education

June, 1974

With the development of the linguistic approaches to grammar, the need arose for a more effective methodology of instruction. As seen from research survey studies, the traditional textbook approach had little, if any, effect on language development. A program that would allow the student to build outward from his own experience and language background was, therefore, explored in this study.

A thorough review of the literature revealed that there exists a definite progression in the syntactic development of children. It was seen that this syntactic maturity may be effectively enhanced through special treatment. Methods for analyzing syntactic growth were investigated, and T-unit length proved to be a viable indicator of such growth. From the studies reviewed, the use of literature, in combination with language explorations that emphasized sentence expansion and transformation, appeared to be a highly successful approach to language
instruction.

Against this background, two comparable third grade classrooms worked for a six month period in differing approaches to English instruction. The control group used a traditional textbook approach. The experimental group, however, became involved with a literature based program that was inner directed. The growth in syntactic maturity was measured by the length of written T-units in the assigned composition tasks. Through the use of the \( t \) test, it became apparent that the experimental group had made significant gains in syntactic maturity when compared to the control group. The findings appeared to indicate that this significance was due to the experimental factor.

It was found that an English program that employs literature as a basis allows for definite enhancement of children's syntactic maturity.
CHAPTER I

INTRODUCTION

The Problem

Educators in the public schools of America are faced with teaching children of diverse backgrounds the necessary tools for self-expression in the English language. According to Day and Nurss, "If a child cannot use school language to express ideas clearly and with ease, he is not likely to meet the expectations schools place on him" (1970:225). The necessity for familiarity with and confidence in the school language shows the need for an elementary school language program that reflects what is known about the child's language and language per se. This language program should allow the child to ultimately develop a full range of linguistic capabilities.

The variety of approaches to the teaching of English in our schools appears to indicate that what is known about the child's acquisition of language is undergoing constant revision. Ever since Noam Chomsky's formulation of the generative-transformational theory, first propounded in 1957 in *Syntactic Structures* and later refined by N. Chomsky (1965) and others, the entire concept of traditional grammar has undergone remodeling. As a result, during the
last twenty years we have seen the rapid development of the use of linguistic grammars in teaching materials. The demonstration by N. Chomsky and other transformationalists of the superiority of certain aspects of generative over traditional grammar led researchers (such as Bateman & Zidonis, 1964) to conduct studies which indicated that transformational grammar did have a positive effect on student writing ability. These positive effects, however, seem to have resulted in a renewed emphasis on the direct teaching of grammar. This appears to be in diametric contradiction to the findings of Henry Meckel. According to Meckel's (1963) report, which surveyed the results of research studies for the first fifty years of this century, the majority of studies revealed that direct grammar instruction has little effect upon the written language skills of students (1963:974).

A system of language instruction which would allow inductive reasoning toward generalizations, as opposed to deductive applications to sentences not of the student's own creation, would seem to afford the child an opportunity to understand how his own communication can be improved. An English language program that gives the child this opportunity could be accomplished, as Loban (1963) points out, "through models, meaning, and reasoning rather than through the application of rules" (1963:88). By allowing the child to listen to models and explore through reasoning the meanings of language, the student may effectively
enhance his own communication skills.

Statement of the Problem

The problem in this study was: "The Effect of Two Differing English Programs on Third Grade Children's Syntactic Maturity."

In the search for a language program, the investigator posed the following problem: Would the use of "A Curriculum for English" (The University of Nebraska Curriculum Development Center) afford any significant differences in the development of children's syntactic maturity when contrasted with the use of the California State adopted Roberts English Series?

The use of literature as a basis for the teaching of English is a methodology which seems to be new. Oral language, it should be noted, far supersedes written language as a means of communication, not to mention priority in acquisition. Linguistic researchers such as Templin (1957, 1968), Carroll (1960, 1964), Labov (1965) and Slobin (1966) have shown the order of language acquisition by children. The age which individual children can acquire general mastery of speech-sound articulation varies considerably. This is particularly shown by the works of C. Chomsky (1969) and Menyuk (1963). Nonetheless, oral language has proven to be the primary form of language. As Labove (1965) points out, however, "there are many stages in the learning of spoken English which cannot be reached
until much later in life, and there are skills in the speaking of English which the grade school child knows nothing about" (1965:77). Therefore, using literature as a starting point, children may become familiar with grammatical structures in language and perhaps incorporate these structures into their own writing.

Limitation of the Problem

This study was limited to two third grade classrooms in a suburban school located in Los Angeles County. There were twenty six students in each class at the outset of this study.

The independent variables were the two methodologies to be employed during a six month period of the academic year 1973-1974. These methodologies were "A Curriculum for English" (The University of Nebraska Curriculum Development Center) for the experimental group and The Roberts English Series for the control group. The independent variables which were controlled were sex, socioeconomic status and age. The covariates of intelligence quotient, reading ability and initial syntactic maturity in written composition were used to equate the experimental and control groups. The covariates were comparable for both groups.

The dependent variable in this study was the pupil's T-unit score produced in written composition.

Not of concern to this study was the exact age or physical condition of each subject. However, children who
spoke no English were not accepted as subjects.

Hypothesis

It was hypothesized that there would be no significant difference at the .05 level of confidence on the posttest between the experimental group and the control group in syntactic maturity.

Rationale

The rationale for this study is twofold. The first concept involved is the enhancement of syntactic maturity. The second concept relates to methodology of language instruction.

The need for further research into the field of syntactic maturity and the treatments to enhance its development in elementary school children is supported by the studies of O'Donnell, Griffin and Norris (1967), Hunt (1968), Ruddell and Graves (1968), Hunt and O'Donnell (1970) and Gale and Boisvert (1971). This statistical research attempted to illuminate Mellon's statement that the "rates of growth toward more mature sentence structure may be enhanced by special treatment" (1967:23).

Further research into methodologies for the effective teaching of language is supported by Loban (1966), Ruddell (1966), Miller and Ney (1968) and Smith, Jensen and Dillingofski (1971). An attempt was made in this study to contrast growth gained from a workbook type approach
to that of using literature to "help children understand how intonation and punctuation may be used to convey meaning in oral and written expression" (Ruddell, 1966:496-497).

Definition of Terms

T-Unit.
As stated by Hunt, the T-unit is "a main clause plus any subordinate clause or non-clausal structure that is attached to or embedded within it. It is grammatically allowable to punctuate any T-unit as a sentence. The term T-unit is short for 'minimal terminable unit'" (1968:4).

_\text{t test}_.
As stated by Elzey, the _t_ test is "appropriate for comparing means of small samples when it is assumed the samples have been randomly selected and the scores come from normally distributed populations" (1967:49).

\underline{Syntactic Maturity}.
The tendency toward the characteristics of writers in an older grade. As Hunt shows, there is an increase in syntactic maturity with every advance in grade level (1968:44).
Transformational Sentence Combining.

According to Mellon, students are presented "with sets of kernel like statements which are then collapsed into single, fully-formed complex sentences in such a way that the student experiences the pseudo-production of these sentences in a specially intensive manner" (1967:14).

Communication Unit.

This was the forerunner of the T-unit and Loban describes it as "a group of words which cannot be further divided without the loss of their essential meaning" (1963:5-6).

Summary

It was the purpose of this study to show that no difference in syntactic maturity occurred on the posttest between the use of "A Curriculum for English" (The University of Nebraska Curriculum Development Center) and The Roberts English Series. Chapter II, Review of the Literature, will look specifically at the use of the T-unit to measure syntactic maturity, the techniques employed to lengthen children's T-units, and the use of literature as a basis for English instruction.
CHAPTER II

REVIEW OF THE LITERATURE

It is the purpose of this Chapter to look at the T-unit as a measure of syntactic maturity, to explore some of the techniques employed to lengthen the T-unit, and finally, to examine the use of literature as a basis for teaching English.

The T-Unit as a Measure of Syntactic Maturity

Up until 1964, it had been almost standard procedure to work with mean sentence length, mean clause length and subordination ratio when measuring syntactic structures written by children. Due to such variables as composition length, subject matter and situations in which language was used, an objective measuring implement was sorely needed. According to O'Donnell, in order for an instrument to practically measure language development, it would have to incorporate the following characteristics: "(1) It would be based on a reliable and valid index of language maturity, (2) It would be easily administered, (3) It would be easily scored" (1968:1). It was not until the study made by Hunt (1964) that progress had been made toward an adequately effective measurement of language.
In his study of the differences in grammatical structures written at three grade levels, Hunt (1964) attempted to establish more revealing procedures for structural analysis of grammar. He demonstrated as correct LaBrant's (1933) observation that children's clauses tend to become longer as the children mature. Hunt also pointed out that sentence length is not a very dependable index of linguistic maturity due to inadequate punctuation and the indiscriminate use of and. Hunt found that fourth graders wrote longer sentences than eighth graders due to excessive and inept coordination of conjunctions as bridges between independent predications. Hunt proposed his minimal terminable unit (T-unit) as an objective measure not affected by punctuation. The minimal terminable unit, hereafter called T-unit, was a refinement of the "communication unit" proposed by Loban (1961, 1963). The T-unit preserves all the subordination achieved by the student and all the coordination of words, phrases and subordinate clauses. But, as Hunt points out, the coordination between the main clauses is not preserved. This elimination of coordination is of no importance since coordination between main clauses is considered immature rather than mature language development.

With the identification of the new syntactic unit, Hunt revised the subordination index (the ratio of all clauses to subordinate clauses). Rather than dividing the
number of subordinate clauses by the total number of clauses, Hunt proposed that the total number of clauses be divided by the number of main clauses. By this procedure, the mean number of clauses per T-unit would be gathered. Hunt employed the following equations to demonstrate how growth was measured:

\[
\frac{\text{words}}{\text{clauses}} \times \frac{\text{clauses}}{\text{T-units}} = \frac{\text{words}}{\text{T-unit}}
\]

\[
\frac{\text{words}}{\text{T-units}} \times \frac{\text{T-units}}{\text{sentences}} = \frac{\text{words}}{\text{sentences}}
\]

When these two equations are combined, the following results:

\[
\frac{\text{words}}{\text{clauses}} \times \frac{\text{clauses}}{\text{T-units}} \times \frac{\text{T-units}}{\text{sentences}} = \frac{\text{words}}{\text{sentences}}
\]

Through the use of this method, Hunt (1965) found statistically significant increases in T-unit length, clause length and number of clauses per T-unit from grade four to grade eight to grade twelve. He found that students tend to write longer clauses as they get older and adults carry this tendency even further. As children mature, they write more clauses per T-unit, but the process appears to reach its peak in twelfth grade for even skilled adults are on a par with twelfth graders. Hunt found that as children get older, they write longer T-units and again this is carried on by adults, due to lengthier clauses in adult writing. Hunt discovered that T-unit length is the best indicator of syntactic maturity in Grades 4, 8 and 12. He found the second best indicator to be clause length.
The third best was found to be clauses per T-unit. The lengthening of single clause T-units was accomplished by the addition of nonclause structures. The lengthening of multiclause T-units was accomplished by the addition of both clause and nonclause structures. The major growth Hunt found in this study occurred in nominal structures. However, in order to correlate and substantiate these findings under more rigorously controlled conditions, Hunt (1968, 1970) designed an investigation that confronted every subject with the same subject matter. Each student and adult would say the same thing because they were all given the same set of simple sentences to expand. Although the subject matter was the same for all age and maturity levels, the older writers showed longer T-units and longer clauses. This confirmed the trends shown by Hunt (1964, 1965) that as children mature, they tend to gain in syntactic maturity.

The syntactic complexity of children's language, which Hunt analyzed on the basis of transformational-generative grammar, is reflected by both clause length and the number of clauses per T-unit. It becomes evident that T-unit length is a useful index of structural complexity since the T-unit incorporates the other two indexes.

O'Donnell, Griffin and Norris (1967) applied Hunt's T-unit in the study of both oral and written syntax of 180 children in kindergarten and in Grades 1, 2, 3, 5 and 7. No writing samples were taken from children in Grades 1 and
2. The emphases of this study were on identifying and quantifying grammatical structures and on defining the sequence of the acquisition and use of these structures. After viewing two eight minute films, with the sound turned off so that the narrator's language would not influence their language production, the children were asked to tell the story of the film privately to an interviewer and to answer certain questions related to the narrative. Their results indicated that the length of the T-units increased by every advance in grade level. The number of clauses per T-unit also increased with every advance in age. The most significant increases in speech mastery were found in Grades 1 and 7, and in writing mastery in Grade 5. The gradation in growth can be seen by Table 1. The general increase by every advance in grade level is supported by the figures of both Hunt (1965) and O'Donnell et al. (1967).

Three studies using more explicit samples and more control were those of Hunt (1968), O'Donnell (1968) and Fox (1972). It was the purpose of these studies to confirm earlier findings under more rigorously controlled conditions. O'Donnell attempted to find out whether T-unit length, clause length and number of clauses per T-unit could be reliably computed from shorter samples. Observed increases were statistically significant. O'Donnell found that "both clause length and number of clauses per T-unit increase together at the lower grade levels, but that clause length
Table 1
Words Per T-Unit, Clauses Per T-Unit
Words Per Clause*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Grade Level</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>7</th>
<th>8</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Words/T-Unit</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O'Donnell</td>
<td></td>
<td>7.67</td>
<td>9.34</td>
<td>9.99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunt</td>
<td></td>
<td>8.51</td>
<td>11.34</td>
<td>14.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Clauses/T-Unit</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O'Donnell</td>
<td></td>
<td>1.18</td>
<td>1.27</td>
<td>1.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunt</td>
<td></td>
<td>1.29</td>
<td>1.42</td>
<td>1.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Words/Clause</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O'Donnell</td>
<td></td>
<td>6.5</td>
<td>7.4</td>
<td>7.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunt</td>
<td></td>
<td>6.6</td>
<td>8.1</td>
<td>8.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Adapted from O'Hare (1971:22); based on the figures of Hunt (1965) and O'Donnell et al. (1967).
accounts for most of the growth at the higher grade levels" (1968:5). From this growth, O'Donnell also concluded that the T-unit is a "useful index of growth in structural complexity" (1968:5). The study conducted by Fox (1972), which was primarily based on the design of O'Donnell (1968), found that "as the children increase in syntactic maturity, they develop as rapidly in vocabulary diversity and length of response" (1972:496). As Hunt points out in regard to the use of the T-unit, "An experimental curriculum designed to accelerate syntactic maturity might well use this instrument as one of the devices for measuring the success of the program" (1968:41).

Techniques Employed for Lengthening the T-Unit

After the initial studies dealing with the development and use of the T-unit, varied experiments have dealt with techniques to improve syntactic maturity and increase T-unit length. These studies have involved both oral and written techniques to enhance syntactic maturity. Two of the major areas in which linguistic researchers have worked to alter syntactic writing behavior are audio-lingual drills and written sentence combining.

Audio-Lingual Drills

As shown by Brooks (1960) and Lado (1964), the use of oral drill techniques, or audio-lingual drills, has had much use over the last few years in the teaching of foreign
languages. However, this technique is now being experimented with in relation to syntactic enhancement. In the study conducted by Bandura and Harris (1966), the grammatical categories of passive voice and prepositional phrase were chosen to be modified with second grade children. The aim of the study was to "investigate the role of modeling, reinforcement and discrimination processes in modifying the syntactic style of children" (1966:343). The subjects produced oral sentences in response to simple nouns written on cards prior to, during and after experimental treatments. The children were exposed to three variables: (1) exposure to an adult who generated a large portion of the desired syntactic structure, (2) informative feedback provided by positive reinforcement, and (3) induction of an attentional set to identify the characteristics of correct sentences (1966:343). The results evidenced by this study appear to indicate that "syntactic style, although difficult to modify, can nevertheless be significantly altered by appropriate social-learning variables" (1966:350). The concept of gradually teaching children to abstract or generalize linguistic rules by modeling, as was accomplished in this experiment, is also carried out by other researchers in audio-lingual drills. According to Ney (1966), not only is the use of audio-lingual drill of significance in altering a child's language behavior, "it is also effective because students can work on the acquisition of new structural patterns and of new vocabulary
and on the mastering of English spelling" (1966:902).

Odegaard and May (1972) also attempted to teach grammar in such a way as to "encourage children to synthesize and create rather than merely analyze" (1972:156). This work was based on that done by Odegaard in 1971. The attempt was made to determine whether the children who used a greater number of different sentence patterns also wrote the most creative stories. Their third grade subjects used oral drill focusing on eight sentence patterns and transformations thereon. Although the word transformation was defined in the general sense of alteration, it was found that the experimental group gained significantly in fluency and creativity. The authors ascertained that the "children who had practice in creating different sentence patterns and transformations wrote compositions that were judged more creative" (1972:160).

Two experimental studies, which were very similar in structure, were conducted by Ney (1966) and Miller and Ney (1968). They followed the model laid down by Ney (1966). The design of the experiments was "to condition the students to use sentences of predetermined syntactic types through verbal manipulation of representative sentences from oral clues" (1968:2). The attempt was made to effect transfer of audio-lingual training to writing by including written exercises which were based on or related to the oral exercises. The methodology was based on that of O'Donnell et al. (1967) in that it elicited a written response of the
subjects after viewing a film. The analysis was based on the measurement of Hunt (1965). As the experimenters point out in their conclusions, "the ratio of multiclause T-units (complex sentences) to single clause T-units (simple sentences) increased more in the experimental group than in the control group" (1968:56). The investigators found that systematic oral and written exercises not only had the effect of lending greater freedom and facility to the writing of the experimental group, but they also found a greater proportion of complex sentences.

Hunt and O'Donnell (1970) used an oral drill technique similar to that employed by Miller and Ney (1968). The purpose of the Hunt et al. study was to explore whether a certain kind of sentence building program could achieve a measurable improvement in the syntactic maturity of fourth graders. The study also had a secondary purpose of determining whether this drill was more to help black students or white students. The experiment involved oral sentence combining for a one hour period per week. The achievement was scored by sentence embeddings on the rewriting instrument. It was found that the experimental group performed at a level typical of sixth graders. The control group, however, remained in the typical fourth grade range. It was found that the black students showed significant superiority in syntactic maturity over the control group. The experimenters felt that the use of these sentence combining techniques may "help children both with
their reading and their writing" (1970:30).

The use of audio-lingual drills to enhance syntactic maturity proves to be successful. The incorporation of this method with that of written drills appears to show equal, if not greater, promise.

**Written Drills**

In looking for ways to increase and enhance the syntactic maturity of children as they progress through our schools, experimenters have dealt with a variety of writing practices and combining drills. The research done by John Mellon (1967, 1969) on written drills and sentence combining proves to be substantial and innovative. The springboard, however, for this study comes from the foundation laid by Bateman and Zidonis (1964).

In the pioneering study conducted by Bateman and Zidonis (1964, 1966), it was discovered that students who studied transformational grammar wrote sentences that were more syntactically complex and contained fewer grammatical errors than those students who did not study transformational grammar. The structural complexity of a sentence was derived by adding one to the number of transformations each sentence contained. Since Hunt's measuring implement, the T-unit, was proposed in the same year as the Bateman and Zidonis study, this study was not analyzed by the Hunt method. Although this study contained methodological difficulties, it showed the way for further exploration.
Mellon's (1967) study had as its aim to find out whether students who were exposed to what he called "transformational sentence-combining practice" (in conjunction with classroom instruction in a minimal transformational grammar) would significantly increase their normal rate of growth in syntactic ability. Mellon discounted the claim by Bateman and Zidonis that the learning of grammatical rules per se led to an improvement in writing ability. He also felt that these rules were in no conscious way being applied by the writer. It was the contention of Mellon (1967) that it was the sentence combining practice and not the study of grammar that had an effect on the student's writing behavior. In Mellon's (1967) study, there were three distinct treatments. Of the twelve classes involved, five control classes studied traditional grammar, five experimental classes studied transformational grammar (which included the sentence-combining practice) and two classes had no grammar instruction. The latter worked in literature and composition.

Mellon used twelve factors of syntactic fluency as his variables "pertaining mainly to nominal and relative embeddings, frequency and depth of embedding, and clustered modification" (1967:14). On comparing the results, Mellon found that the gains for the experimental group were significant at the .01 level of confidence. The results obtained showed that the experimental group had experienced at least one year of additional growth as defined by Hunt's
T-unit statistics. Golub (1967) and Gale and Boisvert (1971) also concluded that the use of a linguistic grammar was effective in increasing the frequency of verb-phrase options in their studies. In the epilogue to his study on transformational sentence combining, Mellon points out that "planned enrichment of the student's language environment . . . does foster enhanced linguistic developments" (1969:84). He feels that the composition of the sentence structure (T-units) "is a variable in terms of which such enhanced development may be measured" (1969:84).

In his study on sentence combining, O'Hare (1973) called into question whether Mellon actually used only sentence combining and no grammar. O'Hare, in opposition to Cooper (1971), felt that Mellon indeed had his students rely heavily on transformational grammar. The question that O'Hare raised in his study concerning the use of both grammar instruction and sentence combining was, which was the cause of enhanced syntactic maturity? In order to answer this question, O'Hare "abandoned entirely the formal study of grammar because grammar study was not needed" (1973:28). He felt that the absence of grammar instruction and concentration on sentence combining practice would give the student a more "systematic and controlled experience in the production of sentences which were more mature than those he would ordinarily write" (1973:27). O'Hare wanted the student to concentrate on "the actual process of transforming by addition and deletion without worrying
about grammatical theory" (1973:27). O'Hare facilitated the sentence combining operations by developing a set of signals that capitalized on the student's inherent sense of grammaticality and that in no way depended upon a formal knowledge of grammar, transformational or traditional. By rejecting Mellon's assertion that "sentence-combining practice had nothing to do with the teaching of grammar", O'Hare used only sentence combining and found that this procedure had a significantly favorable effect on the writing of seventh graders (1969:79). That this effect be limited only to seventh graders is discounted by O'Hare. He states that "In elementary school, simple adjective and relative clause insertions and repeated subject and verb deletions could be practiced orally, in perhaps, second grade" (1973:70). He feels that the third and fourth grades would be an appropriate place to begin with written exercises. The significance shown by sentence combining, through enabling students to build sentences and manipulate syntax with greater facility, makes O'Hare feel that this treatment "should surely be utilized in our schools" (1973:70). As O'Hare asserts that sentence combining is a definite asset to a language arts program, this sentence building technique could be of great value in composition work.

The study conducted by Vitali, King, Shontz and Huntley (1971) demonstrated that language behaviors dependent upon knowledge of grammatical sentence structure were
amenable to experimental manipulation. They based their experiment on those of Mellon (1967) and Ney (1968). The sentence combining drill was conducted in either an individual or modified observational learning paradigm. Vitali et al. (1971) concur with O'Hare (1973) and Ney (1968) by the empirical findings supporting the correlation between sentence combining drill and T-unit length. Vitali et al. suggest that "a program of the type suggested by Hunt may be applied fruitfully to children in primary grades without concurrent classroom instruction in grammar" (1971:525).

The studies involving written drills appear to involve a certain amount of audio-lingual drill as well. The findings of each of the studies reviewed indicate that written sentence combining drill has a definite correlation in enhancing syntactic maturity. The later studies of O'Hare (1973) and Vitali et al. (1971) appear to indicate that direct grammar instruction is not a viable factor in growth in the area of syntactic maturity.

Literature as a Basis for Teaching English

The use of literature as a basis for an English program is a concept that has not been widely dealt with in research. The studies dealing with this subject appear to be limited and highly specific in nature. As Charlotte Huck states, "Since there are few literature programs established in the elementary schools, we lack excellent
models to emulate" (1965:11). The main relationship drawn between literature and the school curriculum is in the area of reading. As a specific basis for English instruction, however, there appears to exist a rather wide gap. In order to see how literature is used as a teaching vehicle, it may be of benefit to examine some experimental studies that employ literature. It will also be of interest to examine the limited studies dealing with the specific use of the Nebraska approach.

**Research Use of Literature**

In the study conducted by Alan Purves in 1968, which was primarily a study of response to literature, the following implications on the use of literature were made:

> The instructor or the curriculum builder may weave any one of a number of lesson plans or units from the connections the work and the individual have with each other and jointly and severally, with the author, with the domain of literature and with the individual's world. A pattern could move from engagement and its exploration, which would necessarily lead to perception of the parts and of the whole that cause that engagement, and possibly to interpretation, classification, and the history of literature and evaluation. Another could move from training in perception to interpretation and evaluation. A third could start with evaluation; a fourth with classification. (1968:65)

The concern of this study was mainly in the area of "writing about literature" at various levels. It was concerned with presenting a scheme for content analysis of expressed responses to a literary work. The involvement
of the student with the literature is of great importance. Purves states:

Ideally, the process of examining one's engagement would lead to an awareness of the literary forces that act on the individual, of his values, and of his own sensibility—all this without losing the initial spark of engagement. This sort of discussion, I think, can begin early in the child's schooling, earlier perhaps than the discussion of complex perceptions or interpretations, because the child always has recourse to his own encounter with the work. (1968:61)

The establishment of a program which allows the child to incorporate his own experiences and feelings when dealing with the literature, would seem to enable the child to handle literary forces encountered. Purves feels that a literature program has touched all the necessary categories of response when they have included such terms as "appreciation," "understanding of our literary heritage," "finding meaning in literature," "developing critical standards and attitudes" (1968:64).

In the experimental study by Barbara Graves (1972), the purpose of the investigation was to effect a positive transfer of oral language experience to writing. This was accomplished through visual, auditory and kinesthetic language development. The experimental group had as one of its activities "listening to and dramatizing stories" (1972:818). The children worked on intonation patterns of the stories read by the teacher and used syntactic blocks to explore the basic patterns of language structure. The
major emphasis in these activities was on language structure as related to meaning. The findings of Strickland (1962) were used in determining first grade sentence patterns. The manipulation of the blocks in a sequential fashion allowed the children to understand how sentences are organized and expanded. The findings after a three year period indicated that "the special language program had positive transfer effect to the writing achievement of third grade children" (1971:822). It may be interesting to note that although Graves points to the advantages of linguistic grammars, she warns against the sole use of the "traditional textbook."

Gardner and Gardner (1971) also employed literature as part of their experimental approach. The authors felt that much of the analysis dealing with children's literary skills has been concentrated in the area of the children's personality in relationship to his literary output. For this reason, the authors felt that little is known about the extent and range of children's skills in creating, communicating and comprehending stories. In order to probe children's literary skills, the authors devised a story completion and retelling task. It was such that it could be administered to diverse age levels. The entire methodology was oral. The results indicated that a "majority of the children combine the daring inventiveness of the younger child with the control and direction of the older child" (1971:45). The factor which is of great concern is
that even the children of low academic ability were finding success with this limited use of literature.

Smith, Jensen and Dillingofski (1971) employed a nonoral literature approach to their fourth grade subjects. After the reading of a story, two writing tasks were assigned. The tasks differed in that one was to "elicit divergent or creative thinking about the selection and one to elicit convergent or noncreative thinking about the selection" (1971:182). The creative activity asked students to extend the stories beyond that supplied by the author and to be imaginative. The noncreative task required the student to describe the main character or to discuss the meaning of the story. They were asked to use their own words but to use only the material supplied by the author. The investigators concluded that "attitudes and comprehension, although not improved, are not negatively affected by integrating reading and writing experience" (1971:188).

An important finding of this study, however, was an implication for teachers. The investigators stated that "teachers who want their students to write more or use more modification would do well to assign their students to be creative and extend stories beyond the endings supplied by the authors" (1971:189).

Dorothy Cohen (1968) chose literature read aloud as a basis for a program designed to deal with weakness of motivation and readiness in low socioeconomic second grade children. She felt literature to be an appropriate solution
because the problem could be attributed to two major factors: "lack of experience with books as a source of pleasure, and inadequacy of language as a consequence of limitations in variety of experience in a milieu that offers restricted language models" (1968:209). Cohen found that the experimental group showed significant superiority in vocabulary, word knowledge and reading comprehension. She felt that the continued exposure of children to literature read aloud in the early stages of education would facilitate the transition to symbols in reading. Brockman and Wasserman (1970) appear to agree strongly with this opinion. They advocate that reading instruction begin "with the component of literature, the common language of man, instead of with tightly programmed materials" (1970:2). With this use of literature, the child will be able to incorporate the elements of his individual background and experience. This will allow him to stretch his own language to its furthest bounds. Since, as Loban (1963) points out, there is a direct correlation between reading ability and writing ability, the use of oral literature may also facilitate the transition to written composition.

Sara Lundsteen (1970) used literature as a basis for a "thinking improvement" program. The investigator used the term "bibliotherapy" in relation to establishing an English program that was based on creative problem solving. Lundsteen refers to bibliotherapy as "using literature as a guidance resource" (1972:505). The use of literature
in this manner is just one aspect in a broad program that is "based on promotion of the child's thinking and language use" (1972:507). She points out that literature has the child as a basis for an audience. This "was assimilated as a component into a larger design for shaping transfer among the various facets of the English program" (1972:505). According to Lundsteen,

> The teaching method is to introduce a literary episode so that the author's one solution is not made known to the class or group until the children have had a chance to try to solve at least part of the situation creatively. Or, if a child already happens to be familiar with the author's plan, he is encouraged to imagine and construct alternatives. The teacher is not seeking any one right solution and the child is fully aware of this openness. The child becomes a creative processor, a partner in the author's thinking. (1972:506)

The use of literature, especially literature which has been structured around a problem relevant to a child, "can be a useful device for entering into the kind of creative problem solving skill recommended to unify a school program" (1972:507). Lundsteen agrees with Reid's (1970) observation that the insights gained from characters with problems relevant to those of the child allow the child "to try on life for size" (1972:511). Lundsteen suggests that the incorporation of linguistics and the language history is useful only when it stems out of the child's natural curiosity and leads to further productive language use.
Use of the Nebraska Approach

The statistical studies dealing with the specific use of the Nebraska approach are highly limited. There has been some exploratory discourse on the effectiveness of the approach when used by classroom teachers, but significant studies are scarce.

The major analysis of "A Curriculum for English" (The University of Nebraska Curriculum Development Center) was designed to gather information on the syntax of children in written composition. This study was undertaken by N. C. Thompson in 1967. The study consisted of four major parts, each dealing with syntactic growth and measurement. Such factors as the difference in syntax between children and adults, the rate of syntactic growth when using differing programs, the superiority of growth by academically advanced students, and the difference in syntax of boys and girls were considered in this study. Three groups of thirty students each, matched by intelligence and socioeconomic background, participated in the study. Group A received an intensive treatment of the Nebraska approach. The investigator was the language arts teacher for this group. Her only involvement with the class was for that purpose. Group B received a moderate treatment of the Nebraska approach with classroom teachers as instructors of language arts. Group C was the control group and the treatment employed was that of the traditional textbook approach based on traditional grammar. The hypothesis, that there would
be no significant differences in the rate of syntactic
growth of children in Groups A, B and C, was rejected at
the .05 level of confidence. The pretreatment and post-
treatment compositions of the third and sixth graders were
analyzed in terms of thirty six syntactic variables. The
basis for notation was taken from Strickland (1962). There
were numerous variations, however, to produce a more re-
efined and complex instrument to analyze written syntax.
The instrument used to analyze the compositions categorized
the individual sentence components into designated levels.
These levels, when taken sequentially, revealed a higher
degree of sentence complexity with each level. This
complexity dealt with adverbial clauses, prepositional
phrases and other facets of syntax. The system of analysis
was basically eclectic and borrowed from the works of
several modern linguists and their approaches to syntax.
The study did not, as Johnson states, "claim to advance
syntactic theory towards a more refined description of a
linguistic system, but rather claims a certain workability"
(1967:38). The rate of syntactic growth was gathered
through analysis of covariance and the Wilcoxon matched
pairs signed-ranks test.

The results of this study revealed that the children
who were involved with the programs that employed literature
gained greater syntactic growth than those of the control
group. The children of Group A made the most gains.
The study did not specifically measure gains made by the
children in T-unit length. This was the factor deemed most reliable for measuring growth in syntactic maturity by Hunt (1964). It did measure the number of T-units written by all groups on the pretest and posttest and that number increased significantly for the groups involved with literature. The study, however, did measure the increases in the levels of complexity in the sentences produced. This involved measuring the frequency of the sentence levels as outlined in the study. The actual increases for the number of words per T-unit, however, was not measured. It may be interesting to note that the children with immature syntax achieved more syntactic growth than those children who were more syntactically developed at the outset of the study. This appears to be in contradiction to the findings of Hunt (1964, 1965, 1970), O'Donnell et al. (1967) and O'Hare (1970). In each of these studies more syntactically mature children made greater gains than those children who were less syntactically mature at the outset of each study. Johnson feels that there appeared to exist a "syntactic growth ceiling" which hindered the more syntactically mature. The hindrance appeared to be less severe with Group A. If the actual lengths of the T-units had been used to measure syntactic growth, would the same findings have resulted?

The report given by Stryker (1968) shows how "A Curriculum for English" (The University of Nebraska Curriculum Development Center) was used for a six week period
in the Demonstration School at the NDEA Elementary English Institute held at California State University, Northridge during the summer of 1967. The purpose of his report and of the program was not, as Stryker clearly points out, "to accumulate statistics on the effectiveness of any particular technique or materials" (1968:5). It was merely to demonstrate some of the workings of the Nebraska approach. The classes involved varied from primary to third-fourth to fifth-sixth. The conclusions arrived at by the Demonstration Teachers appear to be very well taken. Many of the suggestions made would normally be incorporated into an English program that had the Nebraska approach as its foundation, as was true of this study.

Wasserman (1970) also incorporated the Nebraska approach when dealing with language performance and proficiency of Mexican-American children. She was one of the Demonstration Teachers involved with the Stryker report. Wasserman employed an eclectic approach but with a strong emphasis on "literature as a springboard for composition and other language explorations" (1970:23). Wasserman summarized the use of this program over three consecutive summers by saying that "through exposure to a program emphasizing oral language, the young Mexican-American can become proficient in English" (1970:27).

Summary

From the research studies reviewed, it becomes apparent
that literature, as a basis for an English program, is a concept that is fairly new. The major use made of literature in research is of a very specific and narrow nature. The results obtained from this use of literature would seem to indicate that it is an area with which children experience a great amount of interaction and success. The need for further explorations into the use of literature is made by all the studies reviewed. Purves' analysis of expressed responses to literary works shows the need for early involvement with literature. The "engagement," as Purves calls it, between the child and the literary work, enables the child to deal with his own communications. Cohen (1968) and Brockman and Wasserman (1970) also showed how this early involvement allows even low socioeconomic children to expand their language abilities. The need for more analysis of children's literary skills was probed through the study made by Gardner and Gardner (1971). Their results also indicated a strong involvement and communicative desire on the part of the subjects. Graves (1972) showed that her special language program allowed for a positive transfer effect to writing achievement. Even the findings of Smith et al. (1971) suggested a further use of literature and especially the need for students to be allowed to be creative. The study conducted by Lundsteen (1972) used literature as a broad base for extended activities. This program, presented through a diagram of interactions, demonstrated one way in which literature can be a broad
basis for an English program. Johnson's (1967) study showed significant evidence that the Nebraska approach did foster syntactic growth when scored on the 36 variables mentioned. Gains made by children in language proficiency were shown by Wasserman (1970) when the Nebraska approach was employed. Stryker (1968) and Wasserman (1970) both explored some of the assets of the Nebraska approach. It would appear from these works that literature is a definite vehicle with which to involve children in an English program.

Summary

Chapter II reviewed the literature pertinent to this study. It was seen that the T-unit is a viable indicator of syntactic maturity. Research studies have recommended its use as a valid instrument of measurement. Two techniques for enhancing syntactic maturity, audio-lingual drills and written sentence combining, were examined and found to develop positive growth in syntactic maturity. Finally, studies dealing specifically with the use of literature as a teaching vehicle were examined. They indicated that literature proves to be a highly effective basis for a language program. Chapter III will discuss the design of the present study.
CHAPTER III

DESIGN OF THE STUDY

This study dealt with the effects of two differing methodologies on third grade children's growth in syntactic maturity, as measured by the length of the children's written T-unit. As was shown by Chapter II, special procedures may enhance syntactic maturity. The difference in the T-unit length of the posttest was analyzed through the use of the $t$ test. Chapter III will describe the two teaching methodologies employed in the study, the instruments and procedures that were developed and the identification of data sources and population.

Teaching Methodologies Employed

Introduction

In this study two differing types of linguistic methodologies were employed. The control group became involved with The Roberts English Series and the experimental group became involved with "A Curriculum for English" (The University of Nebraska Curriculum Development Center). Since they are both linguistic approaches, it is essential to look at the basic aims for each of the programs in order to find the differences. However, the aspect which is of
prime concern is the actual manner in which each program is presented to the class. In other words, how are the children involved in the learning program. It is in this area of methodology that the two approaches vary widely. One being based on textbook drill (control) and the other using literature to help the child clarify his own communication (experimental).

The Control Group

The control group experienced the State adopted Roberts English Series (1966) which involves a sequential program from Grade 3 to Grade 9. The teacher of the control group followed the program outlined by the accompanying Teacher's Manual for The Roberts English Series. This Series is founded upon the basic ideas of English instruction as propounded by Paul Roberts (1958, 1965). The program is a linguistic one based on generative transformational grammar. It advances as its aim "to improve children's writing by teaching, in a thorough and sequential way, the main features of the writing system: in particular the sound and spelling relationship and the nature of syntax" (1966:1). This teaching is done in a manner expressed as a "frontal attack" which appears to be an analytical and deductive explanation of the system. It involves repetitive textbook drill throughout each section of the book. It is felt that, since most children learn language independent of teaching, this type of approach
will make the learning of English a less difficult task. That is, a less difficult task for those who do not do the job of language learning themselves. It is a program that hopes to bring the children who have difficulty with language learning to a "much greater capability in the writing of English than they could otherwise possibly achieve" (1966:1).

The book for Grade 3 is divided into ten sections and each section into three parts. Each part is composed of two main strands: a reading passage, with notes and questions, and a grammar strand. The grammar includes syntax, the study of the rules that govern the structures that make up sentences, and phonology, the study of the set of rules for the pronunciation of the morphemes that make up sentences (1966:2). There is a literature selection for each of these sections. It appears that poetry predominates over prose. It is also suggested that this literature passage be studied carefully "line by line and word by word." It may even be memorized. The major purpose of this reading selection is to "teach the child to read more accurately and sensitively. The aim is not to teach him to read with appreciation or to read rapidly - however desirable these goals may be" (1966:4). They are asked to "discover consistently and accurately what is on the printed page" (1966:4). This appears to be in direct opposition to Charlotte Huck (1965) who states that "A technical knowledge of literature imposed by the teacher
will defeat the primary aim of enjoyment and appreciation of literature by elementary school children" (1965:15).

Roberts seems to feel that the traditional teaching of grammar has been rehabilitated by the developments of the last few years. He feels that much of what the traditional grammarians intuited as correct, has been proven to be so. He also states that "many of their directions are worth pursuing" (1966:9). The direct teaching of grammar through the use of a textbook is the basic methodology for this approach. Roberts appears to have neglected the findings of such men as Braddock (1963) and Meckel (1963) who found that direct grammar teaching has little, and sometimes even an adverse, effect upon the writing of students.

The teacher of the control group, a devout believer in the Roberts approach, strictly adhered to the teaching methodology outlined by Roberts in the Teaching Manual. The subject was taught three days per week for twenty to thirty minute periods. Any composition work that was included was completed during time periods other than that set for English instruction. The composition work that was done was incidental, except where suggested by the book.

An example of a writing assignment from The Roberts English Series used by the control group is as follows. In Part 3, Section 4 of the Third Grade Roberts English Series, the children are asked to work with capitalization and punctuation within a paragraph. They are asked to read a paragraph on cows and then write their own paragraph
on an animal of their choice. This assignment has two purposes: "to develop facility in written composition, and to provide for application of the conventions of writing, that is, punctuation, capitalization, indentation" (1966:79). The teacher is to point out errors and say "you must have a period here" (1966:79). The teacher is asked not to point out general rules and not to encourage sentences which might require question marks or exclamation points. The writing assignments throughout the Series appear to follow this format.

The Experimental Group

The experimental group became involved in the "spiral" curriculum of Nebraska in which the basic concepts introduced become progressively more sophisticated. The children of the experimental group had not experienced the Nebraska approach prior to this study. This was ascertained by conversations with the children's kindergarten, first and second grade teachers. The Curriculum is divided into units, (see Appendix A). These units revolve around the study of literature, often literature read aloud and include work in language and composition integral to such study. It is the object of these units to expose the child repeatedly to facts and ideas that he may use in order to proceed inductively to general conclusions about the conventions of good literature. As stated by the Curriculum, Grade 3:
The language, literature and composition program for the elementary school is designed to teach students (1) to comprehend the more frequent oral and written conventions of literature composed for young children--formal or generic conventions or simple rhetorical conventions; (2) to control these linguistic and literary conventions in their own writing; and (3) to comprehend consciously the more frequent grammatical conventions which they can handle in their speaking and writing. (1966:viii)

The composition and language activities set forth by the Curriculum stem directly from the child's experience with the literature. A foundation activity suggested by the Curriculum is storytelling, modeled and unmodeled. The work that is done in language exploration and written composition is directly related to the literature that is presented. The composition portion attempts to give the child:

(1) a sense of the expressive possibilities of the sound of language, 
(2) a capacity to manipulate syntactic patterns and to choose the "most desirable" syntactic pattern, 
(3) a capacity to manipulate simple rhetorical devices (metaphor, simile, etc.) and a simple understanding of how consideration of the relation between speaker and audience affects one's handling of oral and written language, and 
(4) a capacity to write in fictional modes analogous to those studied in literature readings and to add more analytic modes of writing to these very gradually. (1966:xx)

The explorations in language, which stem directly from the literature, involve the child with the story read and
his feelings about the use of the language in that particular selection. The language activities presented in each section are directed towards:

(1) displaying to children that English is primarily a word-order language, that the structure of English syntax is often of the utmost importance,
(2) giving children an understanding of the sound (phonology) of the language, its music,
(3) giving them an understanding of the language's historical dimensions (where our vocabulary came from, etc.) and of the evolution of its spelling, understandings so important not only to spelling, but to reading, and
(4) giving them an understanding of the extent to which punctuation is a written representation of the supra-segmental features of spoken discourse. (1966:xxii-xxiii)

The explorations appear to rely upon the child's own feelings or intuitions about the language rather than concrete structural analysis. The use of several samples displaying similar structure allows the child to formulate his own picture of how these structures function. This is accomplished through each of the units in the Curriculum. With every advance in grade level, the child is exposed to further enhancement of the structures involved. Using this basis, the child will be able to expand the tools with which he comes already equipped into the English classroom.

"A Curriculum for English" (The University of Nebraska Curriculum Development Center) incorporates one of the basic ideas proposed by Kellogg Hunt (1964)--that of devising exercises to enable a writer to progress toward a
more mature syntax. The Curriculum suggested four ways to do this: 1) write and rewrite; 2) changing, shifting, cutting and adding; 3) transforming the form of a sentence; and 4) combining sentences. The most important of these, especially in the primary grades, is that of adding. This means that the student should be encouraged to add more information to his skeletal or kernel sentence. He may need to add detail, sensation, qualities and the like. What can be added to make the sentence mean more to the reader? What was left unsaid? In order to see this more clearly, it may be helpful to look specifically at a portion of the treatment.

In working as the teacher of the experimental group, the investigator used the literature suggested by the Curriculum. There were basically four motifs which were recurrent throughout all of the literature. These were:

a. the conflict between wise beast/foolish beast,

b. the journey from home and confrontation with a monster/enemy,

c. the journey from home into isolation, and
d. the rescue from a harsh home into a more secure one.

The investigator introduced new literature material as well as that recommended by the Curriculum. She also employed literature that was assigned by the Curriculum to different grade levels. This is allowed by the Curriculum in that the teacher makes the decision as to what the needs of the
students are and where it would be best to begin the approach. The stress that is made by the Curriculum is that certain material precede others in the individual units so that there is continuity. This was strictly adhered to by the investigator.

When introducing a literature selection, the investigator would have the entire class sitting on rugs close to her. Before reading the selection, certain questions would be asked to set the mood for the story. For example, before reading the *Five Chinese Brothers* by Claire Huchet Bishop and Kurt Wiese, questions such as "Do you have any brothers or sisters?" and "Do you remember any characters we have read or heard about that could do magical things?" were asked to lead the children into the story. The investigator then told the children that in this story there were five characters that could do magical things. She asked them to listen and find out what those magical things were and how and why these special powers were used. This story lends itself especially well to the use of the illustrations in the book. The children need ample time to view the pictures while the story is being read. It may be interesting to note that the children soon became aware of the judge's repetitive phrase "It is only fair." They enjoyed reading along with the investigator as the phrase came up in the story. The involvement of the child in the repetition inherent in the stories is an aspect that occurs frequently in children's literature and is a basic part of
the primary Nebraska approach.

After the reading of the story, the children discussed the magical powers of each of the brothers. What seemed to be of special interest to the group was what would have happened if the magical powers had not worked. The answers varied, but all agreed that if only the little boy had listened to the first brother, as he had promised he would do, none of the trouble would have started. But as one of the children pointed out, if that had happened, we would not have had a good story. The emphasis of these discussions was not directed toward value judgments such as "Did you like the story?" What was of greater concern to the investigator was the discussion of the structure of the story, characterization, the plot, the action and the motif. This type of discussion allows the child to not only comprehend the story he has just heard, but it allows him to later incorporate these aspects in his own writing.

As this story was read in January, the experimental group had already become very familiar with the literature approach. The children had dealt before with the ideas of magical powers and children of other lands. So when the investigator asked the children to do the following composition task, they were well equipped to handle the situation. The students were asked to write their own story based on the one they had just heard. They were asked to incorporate the following into their story:
1. The characters could be brothers or sisters.
2. There could be as few as two or as many as five characters (this choice was used to allow the slower students to be successful with their writing experience).
3. The characters could be from any country.
4. Each of the characters should have a magical power.
5. What happens in your story to make the characters use their magical powers?

The experimental group became involved in one of the Curriculum's foundation activities--that of modeled story writing. Smith et al. (1971) make the need for modeled story writing clear when they state that in order to get more modification "assign students to be creative and extend stories beyond the endings supplied by the authors" (1971:189). The results of this activity can be seen below.

1. **The Three Dutch Sisters**

   Once upon a time there lived three Dutch sisters. The first sister could breathe without oxygen. The second Dutch sister could make a doll in two seconds and she was also very strong. The third Dutch sister had steel skin. One day the second Dutch sister was walking out of the material shop with material so she could make dolls. She met a little girl who said, "Can I make dolls with you?" So the second Dutch sister said, "Okay, if you pay me for teaching you." So the little girl agreed with her. So they went to the second Dutch sister's house and made dolls together. Then the second Dutch sister said, "It's time to stop now." So they did but the little girl ran off with all of
the dolls. Then the second Dutch sister chased her and when she caught her, she hit her and because of her being so strong, the little girl died. When the second Dutch sister returned to town, she was arrested and put in jail. Then the people of the town said, "Send her to the moon without a space suit." So the second Dutch sister said, "May I go to my mother and father to say goodby?" The judge said, "It is only fair." So the second Dutch sister went home and the first sister came in her place. When the rocket blasted off and had landed on the moon, the first Dutch sister heard something in the rocket. So she went and listened to it. It said, "Now hear this. Now hear this. If you are alive blast off the moon and come to Earth." So she did. When she arrived home, the townspeople were surprised to see her alive. So the townspeople said, "Shoot her." So when the day came, the first Dutch sister said, "May I go to my mother and father and say goodby?" So the judge said, "It is only fair." So the first Dutch sister went home and the third Dutch sister came in her place. But when the judge shot her, it backfired and shot him. Then they let the third Dutch sister go because they couldn't do anything to her without a judge. All the Dutch sisters lived very happily ever after.

2. The Three Tasmanian Brothers

Once upon a time these three Tasmanian brothers lived with their Granny. They all had magical powers. One brother could turn into George Washington. The other could turn into Abraham Lincoln. The third brother could turn into anything he wanted. One day the first brother pretended to be George Washington and he got in trouble. They all said he was going to be killed. But he said to all the men could I go back home to bid good bye to my Granny? They said it's only fair. The second brother came back and pretended to be Abraham Lincoln and told the men not to kill him. They didn't believe him. They made their guns ready to shoot him but in a flash the third brother came in.
He turned into a shield and blocked the bullet from hitting his brother. They lived peacefully for many years to come.

3. The Five Chinese Sisters

One day the five Chinese sisters went out to get some fish. They caught a million fish. They saw money on the floor. Oh! and I forgot to tell you that they all have magical powers. The first can fly. The second one can grow. The third and the fourth can turn into a flower and the fifth can turn into a pig. They had many adventures and lived very happily ever after.

These selections were written by children of high (1), middle (2) and low (3) academic ability. It may be of interest to note that the child who wrote the third composition did not know how to write her own name at the beginning of the year and refused to even attempt the writing of a composition.

This particular writing activity lasted for two days--two hours the first day (including the reading and discussion) and one hour the second day. The children always proofread their stories with the investigator when they were completed. Spelling corrections were made where needed and the child decided on the punctuation by oral reading of the story. The children illustrated, as they always did, the stories which they had written. Before going on, it should be noted that this approach was not the only one incorporated. On several occasions, after the reading and discussion, the children would work in three groups. One group writing a story; the second group
involved with the Listening Post or Viewing Center; and the third group involved with a related art activity. This type of approach would usually take three days.

For our English time allotment the next three days, the class worked with the individual pocket charts to emphasize expansion of sentence elements and phrasal structures. The time allotment each day was twenty minutes. An example sentence as suggested by the Curriculum is:

We played ball.
My brother and I played ball.
Two neighbor boys and my brother and I played ball in the park.
Two neighbor boys and my brother and I played ball in the park until sunset.

The children take these sentences and experiment with the order of the sentence elements. The children make their own sentence starter suggestions such as "I see a cat" and from there we work together on expanding, shifting and combining sentences. Generally speaking, a variety of techniques was consciously and very deliberately used to keep the exercises interesting. Questions such as how, where, when, who and why were asked of the children as they began to expand. As Miller and Ney (1968) have found, "written exercises have a favorable effect on the writing of fourth graders" (1968:61). An important aspect of this type of procedure is to let the children discover that the addition of words in certain places can help the sentence "draw a better picture." Both Mellon (1967) and O'Hare
(1973) made use of this sentence expansion procedure with highly significant results.

Another activity that the investigator used later on in the study was what we called our "slot rollers." The object of this activity was to give the children a feeling of what the form classes were (how syntactic positions pattern with derivational and inflectional affixes and determiners). It provided the children with some sense of the structure of the kernel sentence which they were expanding. This activity becomes a basic part of the Curriculum from Grade 4 on, but it is not used frequently before that time. The experimental group, however, was able to work with this in the latter stages of the experiment with success. This type of activity is also suggested by Sauer (1970) to help children understand form classes. Sauer feels that having gradations within texts of sentence patterns will teach "children to understand more complex patterns and more complex sentence pattern slot fillers" (1970:813).

After everyone had finished writing and the children had shared their stories with the class, the stories were made into a booklet and placed at the writing center. All of our compositions were kept at this center so that they could be read by anyone during free time periods. This was to allow each child to read what the other children had written. At the end of the year, the booklets were taken apart and each child received his own stories back to place
in his personal book. Since we numbered all the composition booklets and they were placed in sequential order, the growth in writing ability became self-evident.

A procedure propounded by Leslie Whipp (1972) was used successfully in reporting to the parents on the growth in English ability. When parents came in for conference time, the investigator compared compositions done at the beginning of the year with those being done at present. The parents were made aware of T-unit growth in each case. It becomes a highly visible and comprehensible indicator of growth to the parents.

It must be noted that not all writing activities were modeled writing. That is but one aspect of the Nebraska approach. Poetry was also used quite extensively with the children of the experimental group. Class art activities were very often centered around work in writing. For example, we sponge painted with our acrostic poetry. Language learning became a totally interrelated activity.

Summary of the Two Methodologies - Differences

The two approaches employed in this study, The Roberts English Series and "A Curriculum for English" (The University of Nebraska Curriculum Development Center), are both linguistically based. They were both proposed in the mid-sixties with a linguistic background. Their foundations lie in the work of Noam Chomsky and other transformationalists. The major and most important differences, however,
lie in their methodology. The manner in which these two English programs are presented to the children is where they are at opposite ends of the teaching spectrum. The control group experienced an approach to English that was a closed, outer directed program. It is interesting to note that since Roberts feels that language learning is done mainly independent of teaching, the approach is still one of a direct textbook teaching of grammar. As Graves (1972) notes, even though linguistic grammars are producing longer syntactic structures of greater complexity, it is imperative that we expand "beyond the traditional textbook" (1972:822).

The experimental group, on the other hand, was involved with an approach that was inner directed and dialectical. Nebraska appears to agree with the Platonistic view that one cannot really teach language but can only present the conditions under which it will develop spontaneously in the mind in its own way. As Neil Postman (1967) suggests, the major aim of a language learning program should be that it "helps students to increase their competence to use and understand language" (1967:1162). The Nebraska approach appears to agree with Moffett (1968) in that the involvement of the child is essential to a viable program of instruction. With the use of literature as a starting point, children may begin to grapple with their own modes of communication. When a child takes a sentence of his own creation and is asked how he can make that
sentence mean or communicate more, he is working from himself outward. He is taking his language and learning what he can do with it to "paint his picture with words."

Instruments and Procedures

Design of the Investigation

During the first week of October 1973, the investigator (also the teacher of the experimental group) administered a writing task to both the control and experimental groups. The experimenter read a story entitled *Sylvester and the Magic Pebble* by William Steig to each group in the morning on different days. The teacher of the control group worked in some other subject matter with the experimental group while the investigator read the story and administered the writing task to the control group. After having read the story, the investigator asked each group of children to write a composition entitled "What I Would Have Done If I Were Sylvester." Both sets of compositions were then individually scored by the investigator as to their T-unit length. Since it was desirable that the students' compositions represent their own writing ability, all of the compositions at the pretest and posttest were written in class under the supervision of the investigator. This eliminated potential help from parents or friends. When a child needed a word to be spelled, he simply raised his hand and the investigator provided the spelling of the needed word. In Appendix B is an example from both groups
and scoring by T-unit length.

During the second week of October 1973, the investigator administered the Otis-Lennon Mental Ability Test-Form J to both groups. The teacher of the control group again worked with the experimental group in some other subject matter while the investigator administered the test to the control group. This test was used to determine the mean intelligence quotient for both groups. The Otis-Lennon tests are designed for use with classroom groups and may easily be administered by the classroom teacher.

Both classrooms experienced their respective treatments for the following six months.

According to Loban (1966) and Ruddell (1966), there is a direct correlation between language and reading ability. For this reason, reading ability was controlled. The California Cooperative Primary Reading Test, Second Grade-Form 12A, was used to find the mean reading abilities of both groups.

During the last week of March 1974, the investigator again administered a writing task to both groups. The story Crow Boy by Taro Yashima was used for the posttest. After having read the story to both the control and experimental groups, in the same fashion as the pretest, the investigator asked the children to write a composition entitled "What I Would Have Done If I Were Chibi." The compositions were scored by the investigator according to their T-unit length. For an example from both groups and scoring
by T-unit length, see Appendix B.

The results of both sets of compositions were then subjected to statistical analysis through the use of the \( t \) test to determine whether the hypothesis was rejected or accepted.

**Written Tasks**

Although there have been no definitive studies done on ideal sample size for written composition, O'Hare (1973) found that with seventh graders, a sample of 400 words in length was as reliable an indicator of average T-unit length as was a 1000-word sample. When dealing with third graders, however, no suitable criteria has been set. The investigator, therefore, was on her own to a large degree. According to Hunt (1968), "if what all writers say is kept as nearly as possible the same, then differences in how they say it should be more easily discerned" (1968:6). It was decided that the reading of a story and the children's response to that story would provide a reliable sample for finding T-unit length. Smith et al. (1971) found that "writing tasks that ask for extensions to stories" provide more stimulation and commentary on the part of the children than do mere "what was the story about" questions. As it was necessary to obtain as much commentary from the children as possible, the above writing tasks were employed. Since the subject matter of the writing is highly important, stories were selected that had high interest value and ones
which the children could thoughtfully respond to. The quality of the composition, however, was not judged in any manner. This was not the function of this study. The investigator was only concerned with finding the growth in T-unit length of third grade children over a period of six months. Hunt's (1964) statement that third graders "write only under considerable duress" is something the investigator seriously questions (1964:4). In each of the writing circumstances, the children were anxious to write and express themselves. Methodology again becomes a highly important factor.

Identification of Data Sources,
Population

Characteristics of Sample

The subjects in this study were two third grade classrooms of twenty six students each. The students were within the normal third grade range of eight to nine years of age. The control group had eleven girls and fifteen boys. The experimental group had twelve girls and fourteen boys. The children were randomly assigned to either the control or experimental group. Since it was school policy to group heterogeneously, each class had high, middle and low academic ability levels. The subjects were predominantly from a middle class population. One percent of the students had Spanish surnames.
Equating of Groups

The control group had intelligence quotient scores ranging from 69 to 154, with a mean of 114.15. The experimental group had intelligence quotient scores ranging from 74 to 154, with a mean of 111.96.

Table 2

Comparison of Mean IQ Scores Experimental and Control Groups

<table>
<thead>
<tr>
<th>Intelligence Quotient</th>
<th>Mean</th>
<th>SD</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>111.96</td>
<td>23.27</td>
<td>.003 (n.s.)</td>
</tr>
<tr>
<td>Control</td>
<td>114.15</td>
<td>21.31</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows that there was no significant difference in intelligence quotient scores between the control and the experimental groups. Please note that all nonsignificant t values are designated with n.s. The scores are based upon the administration of the Otis-Lennon Mental Ability Test-Form J.

It was ascertained that the control and experimental groups were comparable in reading ability. Table 3 is concerned with the comparison of the mean reading scores for both the experimental and control groups. Using the California Cooperative Primary Reading Test, Second Grade-Form 12A, as a measure, there is no significant difference
between the subjects of the experimental and control groups as to reading ability.

Table 3
Comparison of Mean Reading Scores
Experimental and Control Groups

<table>
<thead>
<tr>
<th>Reading Stanine</th>
<th>Mean</th>
<th>SD</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>5.69</td>
<td>2.62</td>
<td>.02 (n.s.)</td>
</tr>
<tr>
<td>Control</td>
<td>5.88</td>
<td>1.99</td>
<td></td>
</tr>
</tbody>
</table>

It was also necessary to determine whether the children in both groups were comparable in syntactic maturity at the outset of the study. Table 4 shows the results of the comparison of the pretreatment mean scores for both the control and experimental groups.

Table 4
Comparison of Pretreatment Mean Scores of Syntactic Maturity
Experimental and Control Groups

<table>
<thead>
<tr>
<th>Words Per T-Unit</th>
<th>Mean</th>
<th>SD</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>7.05</td>
<td>4.87</td>
<td>.0097 (n.s.)</td>
</tr>
<tr>
<td>Control</td>
<td>7.06</td>
<td>1.54</td>
<td></td>
</tr>
</tbody>
</table>
The results of this analysis show that there were no significant differences in syntactic maturity, as measured by T-unit length, between the control and experimental groups at the beginning of the study.

Since these variables were either controlled by formulation of the groups or established by statistical analysis, the difference in the findings should reflect the experimental factor.

Summary

Chapter III discussed the design of the study. It dealt with the two methodologies employed for the control and the experimental groups. It showed the differences that exist between these two linguistic approaches. Chapter III showed that the two groups involved, the control and the experimental, were highly comparable in size, intelligence, reading ability, socioeconomic status and boy/girl ratio. The differences between the two groups in regard to syntactic maturity at the beginning of the study were found to be nonsignificant. It was felt that since the two groups were closely comparable, the results would reflect the experimental factor. Chapter IV will discuss the results obtained.
CHAPTER IV

ANALYSIS OF DATA

The previous chapter has described the research design and the procedures for gathering and analyzing the data. The present chapter deals with the results of those procedures. This chapter not only presents the results, but outlines the statistical techniques and analyzes and summarizes the study's data. The results of the hypothesis is herein given. The level of confidence necessary to reject the null hypothesis was set at the five percent level of confidence. This particular confidence interval was chosen by the investigator because of its frequent use by statistical experts in the field who want to decrease the opportunity of a type one error (Elzey, 1967).

Presentation of Data

In order to test the hypothesis, it was necessary to make certain that the equalizing procedures had succeeded in equating the two groups involved in the study. As was shown by Tables 2 and 3, the control and experimental groups had no significant differences in their intelligence quotients and reading ability. Table 4 also indicated that the two groups had no significant difference in their
levels of syntactic maturity, as measured by T-unit length, at the outset of the study. The results of these analyses substantiate the assumption of equivalence of groups. Table 5, therefore, would then reflect the experimental factor. The posttreatment mean scores for the control and experimental groups were compared by a t test for two independent samples. Table 5 shows that the result of this comparison was significant at the .05 level of confidence.

Table 5
Comparison of Posttreatment
Mean Scores of Syntactic Maturity
Experimental and Control Groups

<table>
<thead>
<tr>
<th>Words Per T-Unit</th>
<th>Mean</th>
<th>SD</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>9.57</td>
<td>1.42</td>
<td>3.09*</td>
</tr>
<tr>
<td>Control</td>
<td>8.15</td>
<td>1.63</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level of confidence.

It becomes evident from an examination of the t value in Table 5 that the experimental group had established significant growth in T-unit length at the .05 level of confidence over the control group. The experimental group had established significant growth in syntactic maturity, as measured by T-unit length, over the control group.
Analysis of the Data

The hypothesis of this study had as its object the determination of whether the experimental group, employing "A Curriculum for English" (The University of Nebraska Curriculum Development Center), would differ significantly in syntactic maturity on the posttest from the control group, employing The Roberts English Series. The results of the posttreatment writing task (Table 5) indicates that the null hypothesis can be rejected at the .05 level of confidence. Since the covariates of intelligence quotient, reading ability and initial syntactic maturity were determined to be nonsignificant between the control and experimental groups, Table 5 reflects the use of the experimental factor, the Nebraska approach. It becomes clear that the use of the Nebraska approach has afforded the students an opportunity to enhance their syntactic maturity by the growth in T-unit length. The amount of growth achieved by the experimental group, with the use of the Nebraska approach, is made evident by Table 6. To obtain some idea of the experimental group's growth in syntactic maturity, as measured by T-unit length, the scores were compared with the normative data reported by O'Donnell (1967) and Hunt (1965). As Table 6 indicates, the experimental group gained approximately three grade levels of growth, while the control group gained the normal growth of one grade level. This one grade level growth is the
Table 6
Comparison by Grade Level of the Experimental Group's Posttreatment Scores of Syntactic Maturity Based on the Normative Data of Hunt and O'Donnell

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Experimental Group</th>
<th>Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>7.67</td>
<td>9.99</td>
</tr>
<tr>
<td>4</td>
<td>8.51</td>
<td>9.57</td>
</tr>
<tr>
<td>5</td>
<td>9.34*</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*There are no figures available for sixth grade.
normal growth confirmed by Hunt (1965). It is interesting to note that the experimental group fell into the range of approximately a sixth grade syntactic maturity level. For this reason, the investigator put 5 to indicate that the experimental group was between the scores for fifth and seventh grade. The gains achieved by the experimental group reflect favorably on the use of the Nebraska approach to enhance third grade children's syntactic maturity.

Summary

In Chapter IV the data for this investigation are presented and analyzed. The investigator is able to reject the null hypothesis. The experimental group made significant gains at the .05 level of confidence over the control group in syntactic maturity, as measured by T-unit length. This would appear to indicate that the use of "A Curriculum for English" (The Nebraska University Curriculum Development Center) affords the teacher a vehicle with which to significantly enhance the growth of the student's syntactic maturity. Chapter V will examine some conclusions and implications.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The present study was designed to measure the effect of two differing English programs on third grade children's syntactic maturity. The experimental group became involved with "A Curriculum for English (The University of Nebraska Curriculum Development Center) and the control group used the State adopted Roberts English Series. The question posed by this study was: Would the use of the experimental approach afford a greater growth in syntactic maturity when the written posttest was measured as to T-unit length? The subjects were deemed comparable at the outset of the study. Therefore, any significant difference in the t value on the posttest would reflect the experimental factor.

Conclusions

As a result of the analyses of the data presented in Chapter IV, it was concluded that the written compositions of the experimental group had significantly increased in T-unit length over the control group. From the studies of Hunt (1964, 1970) and O'Donnel et al. (1967), it was seen that T-unit length is a viable indicator of syntactic
maturity. The experimental group had increased their syntactic maturity, as measured by T-unit length, over the control group at the .05 level of confidence. When the data were compared with the normative studies of Hunt (1965) and O'Donnell et al. (1967), it was seen that the experimental group's compositions were at the syntactic maturity level of sixth graders. This was a growth factor of T-unit length of approximately three grade levels.

It would seem plausible to infer from the data given in Chapter IV that the significant performance of the experimental group on the posttest was due to the experimental factor. As stated by Charlotte Huck (1967), the "constant exposure to fine writing will be reflected in children's increased skill in their own oral and written expression" (1967:289). With this being the case, "A Curriculum for English" (The University of Nebraska Curriculum Development Center), as opposed to The Roberts English Series, would appear to afford the teacher a methodology which allows the student to explore and enhance his own language capabilities.

Recommendations

The present study poses the following recommendations for further research.

1. A longitudinal study is recommended to determine whether syntactic maturity may be further enhanced over a longer period of time.
2. A study involving a different age group is highly recommended.

3. A future study should involve a different socioeconomic sample.

4. A statistical study employing this approach with subjects who have language deficiencies is strongly recommended.

5. A study is recommended that would compare the growth made at varying grade levels with the literature approach of Nebraska.
REFERENCES


Lundsteen, S. W. A thinking improvement program through literature. Elementary English, 1972, 49, 505-512.

May, F. B. Teaching language as communication to children. Columbus, Ohio: Charles E. Merrill, 1967.


Templin, M. C. Longitudinal study through the fourth grade of language skills of children with varying speech sound articulation in kindergarten. Minneapolis: Institute of Child Development, University of Minnesota, 1968.


## APPENDIX A

### ELEMENTARY SCHOOL UNITS

<table>
<thead>
<tr>
<th>Grade</th>
<th>FOLK</th>
<th>FANCIFUL</th>
<th>ANIMAL</th>
<th>ADVENTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Little Red Hen</td>
<td>Little Black Sambo</td>
<td>Millions of Cats The Eagle's Child</td>
<td>Little Tim and the Brave Sea Captain</td>
</tr>
<tr>
<td></td>
<td>Three Billy Goats Gruff</td>
<td>Peter Rabbit</td>
<td>How the Rhinoceros Got His Skin</td>
<td>The Little Island Ferdinand</td>
</tr>
<tr>
<td></td>
<td>The Gingerbread Boy</td>
<td>Where the Wild Things Are</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Little Red Riding Hood</td>
<td>And to Think That I Saw It on Mulberry Street</td>
<td>Blaze and the Forest Fire How Whale Got His Throat</td>
<td>The Bears on Hemlock Mountain The Cat That Walked by Himself</td>
</tr>
<tr>
<td></td>
<td>Story of the Three Pigs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three Bears</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sleeping Beauty</td>
<td>The Five Chinese Brothers</td>
<td>The Blind Colt How the Camel Got His Hump</td>
<td>Winnie-the-Pooh Mr. Popper's Penguins</td>
</tr>
<tr>
<td></td>
<td>Cinderella or the Little Glass Slipper</td>
<td>Madeline Madeline's Rescue</td>
<td>How the Leopard Got His Spots The Sing-Song of Old Man Kangaroo</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mother Holle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Febold Feboldson</td>
<td>Charlotte's Web</td>
<td>Brighty of the Grand Canyon</td>
<td>Homer Price</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Tall Tale America Rapunzel</td>
<td>The Snow Queen The Lion, the Witch, and the Wardrobe</td>
<td>King of the Wind</td>
<td>The Merry Adventures of Robin Hood Island of the Blue Dolphins</td>
</tr>
<tr>
<td></td>
<td>The Woodcutter's Child</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Three Languages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>The Seven Voyages of Sinbad</td>
<td>Alice in Wonderland and Big Red Through the Looking Glass A Wrinkle in Time</td>
<td></td>
<td>The Adventures of Tom Sawyer</td>
</tr>
</tbody>
</table>

---

75
<table>
<thead>
<tr>
<th>Grade</th>
<th>Myth</th>
<th>Fable</th>
<th>Other Historical Lands and Fiction</th>
<th>Biography</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Story of the First Butterflies</td>
<td>The Dog and the Shadow</td>
<td>A Pair of Red Clogs</td>
<td>They Were Strong and Good</td>
</tr>
<tr>
<td>2</td>
<td>The Golden Touch</td>
<td>The Hare and the Tortoise</td>
<td>Crow Boy</td>
<td>Caroline and Her Kettle</td>
</tr>
<tr>
<td></td>
<td>Daedalus and Icarus</td>
<td>Chanticleer and the Fox</td>
<td>The Red Balloon</td>
<td>The Courage of Sarah Noble</td>
</tr>
<tr>
<td>3</td>
<td>Clytie Narcissus</td>
<td>The Ant and the Grasshopper</td>
<td>The Musicians of Bremen</td>
<td>Christopher Columbus and His Brothers</td>
</tr>
<tr>
<td>4</td>
<td>Hiawatha's Fasting</td>
<td>Jacobs: The Fables of Aesop</td>
<td>A Brother for the Orphe-lines</td>
<td>Little House on the Prairie</td>
</tr>
<tr>
<td></td>
<td>Theseus and the Minotaur</td>
<td>The Wind in the Willows</td>
<td>The Door in the Wall</td>
<td>The Matchlock Gun</td>
</tr>
<tr>
<td></td>
<td>Arachne</td>
<td>Jataka Tales</td>
<td>Children of the Covered Wagon</td>
<td>Dr. George Washington Carver, Scientist</td>
</tr>
<tr>
<td>5</td>
<td>Phaeton and the Chariot of the Sun</td>
<td>Bidpai Fables</td>
<td>The Book of King Arthur</td>
<td>Sails the St. Lawrence</td>
</tr>
<tr>
<td></td>
<td>Atalanta's Race</td>
<td>The Hobbit</td>
<td>Secret of the Andes</td>
<td>Noble Knights</td>
</tr>
<tr>
<td>6</td>
<td>Jason</td>
<td>The Children of Odin</td>
<td>Hans Brinker</td>
<td>Cartier</td>
</tr>
<tr>
<td></td>
<td>The Labors of Hercules</td>
<td>The Wind in the Willows</td>
<td>The Book of Cartier</td>
<td></td>
</tr>
</tbody>
</table>

CORRELATIVE UNITS: "You Come Too" - Poetry of Robert Frost - Grade 6; Poetry for the Elementary Grades; Language Explorations for Elementary Grades.
APPENDIX B

ANALYSIS OF PRE- AND POSTTEST

The method for analyzing the written composition tasks administered at the outset and end of this study was based on the work of Hunt (1964). The sequence followed by the investigator was adapted from Jung (1971). One pretest and one posttest example is given from the control and the experimental groups. The compositions scored herein are from the same student in each group so that growth can be seen.

Control Group

Pretest--Subject A

I am Sylvester and I am walking down Strawberry Hill. I found the magic red pebble on Strawberry Hill and I met the very hungry lion. I would wish the very hungry lion was not there with me.

1. I am Sylvester/ and I am walking down Strawberry Hill. 1 sentence; 2 T-units; 10 words total--3 and 7

2. I found the magic red pebble on Strawberry Hill/ and I met the very hungry lion. 1 sentence; 2 T-units; 16 words total--9 and 7

3. I would wish the lion was not there with me. 1 sentence; 1 T-unit; 12 words total

Summary of Composition

a. 3 sentences total
b. 5 T-units total
c. 38 words total
d. 7.6 words per T-unit
e. 3 words per T-unit minimum
f. 11 words per T-unit maximum
Hi, my name is Chibi and I'm going to tell you about my days at school. The first day I did not do too much work at school. I tried to make a whole lot of new friends. At any rate, let's skip five years into the future. Now I walked in the room. I was really scared but after a little while I really liked my new teacher and he really liked me. But then came our graduation day. I was in the school talent show. My act turned into a great big success. I graduated with lots of honors.

1. Hi, my name is Chibi and I'm going to tell you about my days at school.  
   1 sentence; 2 T-units; 17 words total

2. The first day I did not do too much work at school.  
   1 sentence; 1 T-unit; 12 words total

3. I tried to make a whole lot of new friends.  
   1 sentence; 1 T-unit; 10 words total

4. At any rate, let's skip five years into the future.  
   1 sentence; 1 T-unit; 11 words total

5. Now I walked in the room.  
   1 sentence; 1 T-unit; 6 words total

6. I was really scared but after a little while I really liked my new teacher and he really liked me.  
   1 sentence; 3 T-units; 20 words total

7. But then came our graduation day.  
   1 sentence; 1 T-unit; 6 words total

8. I was in the school talent show.  
   1 sentence; 1 T-unit; 7 words total

9. My act turned into a great big success.  
   1 sentence; 1 T-unit; 8 words total

10. I graduated with lots of honors.  
    1 sentence; 1 T-unit; 6 words total

**Summary of Composition**

a. 10 sentences total
b. 13 T-units total
c. 103 words total
d. 7.9 words per T-unit
e. 4 words per T-unit minimum
f. 12 words per T-unit maximum
Experimental Group

Pretest--Subject B

My name is Sylvester. I live at Oatsdale near Strawberry Hill. It all started when I was walking on Strawberry Hill and I found the brightest little pebble I ever saw. I picked it up and I put it on my head. But all of a sudden out of the grass came a big brown lion and he scared me. I better think fast. So I turned him into a lion with no legs.

1. My name is Sylvester.  
   1 sentence; 1 T-unit; 4 words total

2. I live at Oatsdale near Strawberry Hill.  
   1 sentence; 1 T-unit; 7 words total

3. It all started when I was walking on Strawberry Hill/ and I found the brightest little pebble I ever saw.  
   1 sentence; 2 T-units; 20 words total--10 and 10

4. I picked it up/and I put it on my head.  
   1 sentence; 2 T-units; 11 words total--4 and 7

5. But all of a sudden out of the grass came a big brown lion/and he scared me.  
   1 sentence; 2 T-units; 18 words total--14 and 4

6. I better think fast.  
   1 sentence; 1 T-unit; 4 words total

7. So I turned him into a lion with no legs.  
   1 sentence; 1 T-unit; 10 words total

Summary of Composition

a. 7 sentences total
b. 10 T-units total
c. 74 words total
d. 7.4 words per T-unit
e. 4 words per T-unit minimum
f. 14 words per T-unit maximum

Posttest--Subject B

My name is Chibi, which means tiny girl, and I am very, very shy. I live on a far away mountainside with beautiful flowers where no one else lives. I am Japanese and so are my mother and father. The first day of school and no one even knows me. I just know I'm going to have a bad, bad
day. Oh well! no one likes me and no one will. On my long way to school each morning I'll listen to the wild black crows talk to each other. I have a very long and winding road to travel that has beautiful trees and flowers. I sure hope my teacher is nice like the girl's who is writing this story. Well here I am and here I go up the stairs, no down, no up! What am I going to do? Shall I run home or stay here? Oh, what do I do? Well, I might as well go in the classroom. Someone's bound to find me anyway. I wonder what we do in school? Five years went by and now I'm in sixth grade with a super nice teacher like the one in front of this paper. Oh no! report cards today and graduation too. I better do well on both for all that walking and writing for the girl that is writing this. Oh boy! what a grade! Up on the stage I go. What do I do? I'll do my wild crow calls like the crows of the far away mountain. Well now I'm not afraid anymore because I'm making many new friends.

1. My name is Chibi, which means tiny girl,/and I am very, very shy.  
   1 sentence; 2 T-units; 16 words total--10 and 6

2. I live on a far away mountainside with beautiful flowers where no one else lives.  
   1 sentence; 1 T-unit; 13 words

3. I am Japanese and so are my mother and father.  
   1 sentence; 1 T-unit; 10 words total

4. The first day of school and no one even knows me.  
   1 sentence; 1 T-unit; 11 words total

5. I just know I'm going to have a bad, bad day.  
   1 sentence; 1 T-unit; 12 words total

6. Oh well! no one likes me/and no one will.  
   1 sentence; 2 T-units; 10 words total--6 and 4

7. On my long way to school each morning I'll listen to the wild black crows talk to each other.  
   1 sentence; 1 T-unit; 20 words total

8. I have a very long and winding road to travel that has beautiful trees and flowers.  
   1 sentence; 1 T-unit; 16 words total

9. I sure hope my teacher is nice like the girl's who is writing this story.  
   1 sentence; 1 T-unit; 15 words total
10. Well here I am/and here I go up the stairs, no down, no up!
   1 sentence; 2 T-units; 15 words total--4 and 11
11. What am I going to do?
   1 sentence; 1 T-unit; 6 words total
12. Shall I run home or stay here?
   1 sentence; 1 T-unit; 7 words total
13. Oh, what do I do?
   1 sentence; 1 T-unit; 5 words total
14. Well, I might as well go in the classroom.
   1 sentence; 1 T-unit; 9 words total
15. Someone's bound to find me anyway.
   1 sentence; 1 T-unit; 7 words total
16. I wonder what we do in school?
   1 sentence; 1 T-unit; 7 words total
17. Five years went by/and now I'm in sixth grade with a super nice teacher like the one in front of this paper.
   1 sentence; 2 T-units; 15 words total--4 and 12
18. Oh no! report cards today and graduation too!
   1 sentence; 1 T-unit; 8 words total
19. I better do well on both for all that walking and writing for the girl that is writing this.
   1 sentence; 1 T-unit; 19 words total
20. Oh boy! what a grade!
   1 sentence; 1 T-unit; 5 words total
21. Up on the stage I go.
   1 sentence; 1 T-unit; 6 words total
22. What do I do?
   1 sentence; 1 T-unit; 4 words total
23. I'll do my wild crow calls like the crows of the far away mountain.
   1 sentence; 1 T-unit; 15 words total
24. Well now I'm not afraid anymore/because I'm making new friends.
   1 sentence; 2 T-units; 14 words total--7 and 7
Summary of Composition

a. 24 sentences total
b. 29 T-units total
c. 261 words total
d. 9.0 words per T-unit
e. 4 words per T-unit minimum
f. 20 words per T-unit maximum