This study examines eight evaluative abstracts on grammar instruction, to determine the effects of such instruction on student writing and to trace the development of sentence-combining instruction, which helps students write with increased syntactic maturity. On the basis of the evaluative abstracts, the study concludes that traditional grammar instruction does not help students improve their writing ability appreciably, that such instruction, in fact, may hinder the development of students as writers, and that sentence-combining instruction should be incorporated into both elementary and secondary language arts programs. (Author/RL)
THE EFFECTS OF FORMAL GRAMMAR INSTRUCTION vs. THE EFFECTS OF SENTENCE COMBINING INSTRUCTION ON STUDENT WRITING: A COLLECTION OF EVALUATIVE ABSTRACTS OF PERTINENT RESEARCH DOCUMENTS

The purpose of this research problem was to read and evaluate available studies in the area of grammar instruction. Specifically, the problem I wished to study dealt with grammar instruction and its effects on student composition.

The following are specific questions I wanted answered:

1. Does instruction in traditional grammar help or hinder student writing?

2. Does instruction in structural or transformational generative grammar help or hinder student writing?

3. What is syntactic maturity?

4. What is the difference between a fourth-grader's composition and one of a high school senior?

5. Is it necessary to teach the rules and terminology of transformational generative grammar in order for students to benefit from it in terms of the composing process?

6. Is there a grammar or methodology that aids students in writing more maturely?

7. Does a curriculum plan exist that has proven that it can help students write with more fluency and in a more mature style?

JUSTIFICATION OF EDUCATIONAL IMPORTANCE:

Education today is in the midst of accountability and a "return to basics" movement. The linguistic bandwagon is slowing down and teachers are once again faced with the problem of what grammar to teach, if any, how and why.

Language arts educators across the country have been faced with decisions about grammar instruction and its usefulness. One of the primary reasons purported for teaching any grammar is that it aids students in writing. Realizing that I might someday be in the position of justifying a decision on whether or not to teach a grammar, I decided that I'd better read the research and make an intelligent decision based on fact.
EVALUATIVE ABSTRACT OF:


While this is not a research study per se, it does summarize most of the research done in the field of grammar and its effects on composition. Moffett's ability to mix the theoretical with the practical and the historic with the current is something I needed in formulating answers to my question of grammar instruction and its effect on composition.

Moffett begins this chapter with a discussion that centers around the argument that for most people, good grammar means use of a standard dialect. He cites studies by Loban which show students have most trouble with forms and inflections of individual words rather than problems with prepositions, conjunctions, adjectives and adverbs. What is more important is that being able to classify words according to grammatical terminology certainly does not help a student to make the switch from his particular dialect to a standard dialect. In terms of formal grammar and its effect on composition, Moffett defines formal grammar as memorizing parts of speech, parsing and diagramming sentences and learning the concepts of traditional and structural slot-and-substitution grammar. Moffett quotes the following paragraph from Research in Written Composition:

In view of the widespread agreement of research studies based upon many types of students and teachers, the conclusion can be stated in strong and unqualified terms: the teaching of formal grammar has a negligible or, because it usually displaces some instruction and practice in actual composition, even a harmful effect on the improvement of writing.

Before leaving traditional grammar, Moffett reiterates and then disposes of several other traditional arguments for teaching formal grammar:

1. Shouldn't grammar be taught as an aid to learning foreign languages?

1a. Moffett feels that to use this as a reason for teaching grammar amounts to taking a side in the foreign language controversy concerned with eliminating grammar instruction in favor of a direct method emphasizing conversation and oral pattern drills. He goes on to say, "At any rate, if foreign language teachers want students to learn formal grammar, let them teach it."

2. "A knowledge of grammatical terms helps the teacher discuss composition with his students."

2a. Moffett suggests that if a teacher feels this way, he needs to duplicate a sheet of terms and definitions and spend no more than one period acquainting students with such terms.
3. Grammar disciplines the mind.

3a. "The answer to this is that ordinary language is far too ambiguous for training in formal logic. Instead, let's offer a course in symbolic logic and not fool around with an inferior system."

After burying traditional grammar, Moffett goes on to tackle transformational grammar. He cites the work of Mellon and Zidonis among others and emphasizes Mellon's success in developing mature syntactic growth through sentence-combining. Moffett is quick to agree with Mellon when the latter suggests teaching sentence combining as a game. What is important here is that Moffett acknowledges the work of the transformationalist, but argues that it is not necessary to make students learn a series of linguistic rules which they have unconsciously mastered by the time they enter school.

In essence, then, Moffett effectively dispenses with traditional grammar and emphasizes the importance of sentence-combining as developed through transformational generative grammar. He points to studies like Mellon's that prove sentence-combining does help students develop syntactic maturity faster than normal.

It is obvious that all of this has implications for my problem of grammar instruction and composition. Moffett uses research, logic, and practical classroom activities, all of which help me in solving my particular problem.
EVALUATIVE ABSTRACT OF:


NOTE - Most studies dealing with grammar instruction and its effect on composition refer to the above study. Since a copy of this study would have been difficult to obtain, I had intended to abandon it. However, Harris' study is one of the five that Braddock, et al., felt was particularly good in the field of composition research. The following evaluative abstract is taken from information found in Research in Written Composition by Braddock, Lloyd-Jones and Schoer.

I. STATEMENT OF THE PROBLEM:

The purpose of this study was to investigate the relative teaching usefulness of formal grammar instruction versus direct method instruction. Formal grammar instruction refers to parts of speech, textbooks and grammatical terminology in classroom teaching and in correcting compositions.

Direct Method refers to a methodology which uses no textbook and follows a pattern of treating common errors that students are making in their compositions. These errors are treated by example and imitation as opposed to generalization and abstraction.

II. STATEMENT OF PROCEDURE AND DESIGN UTILIZED:

In a total of five London schools, Harris was able to follow 119 students in the Formal Class for two years. During the same period of time, 109 students were followed in the Direct Method class. In four of the schools, one teacher taught both classes. No terminology or reference to formal grammar was used in the Direct Method class.

Each class met for five 40-minute periods with the fifth period being set aside for formal grammar or Direct Method. It was found that more time was spent on composition in the Direct Method class simply because of the elimination of many "dummy runs."

Two instruments produced the differences in the two groups. One instrument was a short-answer formal grammar test that asked for naming parts of speech and explaining what was wrong with a sentence in "grammatical terms." This test was given to both groups before and after the two years of instruction.

The second measure was a composition. Each class wrote both a descriptive paper and a narrative composition. One was written at the beginning of the two years and one at the end. Two class periods were allowed for each composition.

Harris compared these compositions with a set of "Criteria for Maturing Style" which he had developed by analyzing compositions written by 10-year olds and 15-year olds.
III. SUMMARY OF MAJOR FINDINGS AND CONCLUSIONS:

In terms of the formal grammar test, the Formal Grammar group showed significant gains in their knowledge of recognition and use of grammatical terminology. On an average, the students in the Formal Grammar class gained from 14-20 points. The Direct Method class gained from 1.57 to 3.32 points in the Direct Method instruction.

The compositions written at the beginning and end of the two-year period were subject to frequency counts based on the Harris Criteria of Maturing Style. It was found that the Direct Method class scored significantly higher in all eleven aspects on the maturity style sheet. This lead Harris to conclude that there was "the lack of effective tie between a relatively high grammatical score and improvement in the measured items of the essay." Also, when Harris considered some of the grammar test scores as well as analyzed compositions written by people in the Formal Grammar class, he concluded, "It seems safe to infer that the study of English grammatical terminology had a negligible or even a relatively harmful effect upon the correctness of children's writing in the early part of the five Secondary Schools."

IV. PERSONAL ASSESSMENT AND IMPLICATIONS FOR MY PERSONAL PROBLEM:

This study has advantages of time (longevity) and number of students. Disadvantages include differences in background, intelligence and success in English for all students. Also teacher personality and methodology is not considered. Further, Harris' list of Criteria for a Maturing Style were arrived at using only 25 fifteen-year olds.

Other weaknesses might include the fact that students were assigned a specific topic to write on; this may have had some influence on their syntactic style.

This study has obvious implications for my problem dealing with grammar instruction and its effects on composition. Harris' research indicates that formal grammar instruction is, at best, of little or no value and, at worst, can be harmful to the student particularly in terms of composition and developing syntactic maturity in writing.
EVALUATIVE ABSTRACT OF:

Kellogg W. Hunt, Grammatical Structures Written at Three Grade Levels, No. 3 NCTE Research Report, 1965.

I. STATEMENT OF THE PROBLEM:

Hunt had two purposes in mind for this study:

1. To develop for the quantitative study of grammatical (syntactic) structures, a method of procedure which is coherent, systematic, broad, yet capable of refinement to accommodate details.

2. To search for developmental trends in the frequency of various grammatical structures written by students of average IQ in the fourth, eighth, and twelfth grades.

II. PROCEDURE AND DESIGN UTILIZED:

1. The students whose writings were analyzed were selected from those receiving scores of 70-110 on the California Test of Mental Maturity (short form). All were from the University School of the Florida State University at Tallahassee.

2. Nine boys and nine girls were selected from each of three grades: eighteen per grade, fifty-four in all.

3. The grades were fourth, eighth, and twelfth.

4. Close to 1,000 words of writing was used from each student. Usually the number of words was within 1% of 1,000.

5. The writing was done in class and was not altered by anyone other than the writer.

6. The subject matter was not controlled by the investigators. They wanted the subjects to be characteristic of what each grade was writing about in school.

III. MAJOR FINDINGS AND CONCLUSIONS:

In order to deal with the concept of syntactic maturity, Hunt presented a case against using sentence length as an indication and substituting in its place something called a "minimal terminable unit" or T-unit.

The first part of the study clearly indicated that increasing T-unit length is closely tied to maturity. Much of Hunt's research concerned itself with an attempt to categorize what parts of the main clause are expanded and which structures are used for expansion. At about 12th grade, Hunt found that expansion
by adding subordinate clauses seems to taper off. What seems to be the basis for clause lengthening is an increased use of modifiers and nominalization of clauses.

Hunt adds an important dimension to this study when he analyzed "superior adult" writing in Harper's and Atlantic. This analysis revealed that superior writers packed 36% more words into their clauses than did 12th graders ready to graduate. With this analysis in mind, Hunt was led to assume that as a student matures, he learns to "incorporate a larger body of thought into a single intricately related organization."

The following example is included to show how the same sentence might be handled by students at different levels of syntactic maturity.

The sailor finally came on deck. He was tall. He was rather ugly. He had a limp. He offered them the prize.

(5 T-units. 5.4 words/unit) (Below average 4th grade.)

The sailor finally came on deck. He was tall and rather ugly and had a limp. He had offered them the prize.

(T-unit length is now 7.3. Now only 3 T-units.)

The tall, rather ugly sailor with a limp, who had offered them the prize, finally came on deck.

(1 T-unit, 18 words long, more mature than average 12th grader.)

These examples seem to indicate that while mature writers use longer T-units, they tend to display succinctness and economy in what they say than does the younger less mature writer.

IV. PERSONAL ASSESSMENT AND IMPLICATIONS FOR MY PERSONAL PROBLEM:

There can be little doubt that this study is a landmark in the field of writing maturity of students. This study with its normative data is the basis for much of the transformational grammar and sentence-combining research done after this. The introduction of the T-unit has helped the analysis of syntactic maturity greatly. The study itself is solidly based in terms of statistical analysis of data. However, problems that do occur in this study are:

(1) Only a very small number of subjects were used.

(2) Only students with "average" IQ's were involved.

(3) What the students wrote about was not controlled at all among the different age groups. Certainly all students need not write on the same topic, but there might be a difference in how a student writes a composition on the revenge theme in Macbeth and how he writes one on what he did last summer. Further research would help clear up the above weaknesses.
My problem deals with the teaching of grammar and its effects on writing. This study has a direct bearing on this problem because it forms a basis for what syntactically mature writing is. This research provided my theoretical base in order to go on and analyze other literature that used T-units and basic normative data from this study.
EVALUATIVE ABSTRACT OF:


I. STATEMENT OF PROBLEM:

The study sought to measure the effect that the teaching of a generative grammar has upon the writing of ninth and tenth graders.

Specific questions included:

1. Can high school pupils learn to apply the transformational rules of a generative grammar in their writing?

2. Can their repertoire of grammatical structures be increased by a study of generative grammar?

3. To what extent will the proportion of well-formed sentences increase in pupil writing over the two-year period?

4. What kinds of transformational errors will occur in pupil writing, and to what extent will such errors increase or diminish over the two-year period?

II. PROCEDURE AND DESIGN UTILIZED:

To test the effects of a study of a generative grammar upon pupil writing over a two-year period, the experimenters chose the ninth grade class at the University School of the Ohio State University. These fifty were randomly assigned to two sections with two different teachers.

The experimental class was required to learn special grammatical materials prepared by investigators.

Written compositions were collected from both groups during the first three months of the first year and the last three months of the second year. Teachers met regularly to standardize writing assignments. Each student wrote 12 pieces of writing for analysis, six at first and six finally.

Analysis of Writing: Sentences were analyzed using 46 transformational rules of which there were four main types: embedding, conjoining, deleting and simple.

a. Step one - each student sentence was given a Structural Complexity Score (SCS). This score was obtained by adding up the number of grammatical operations that took place in a particular sentence. Lowest score would be 1 for a kernel sentence; the score for a complex sentence becomes 1 plus the number of transformations it contains. The mean SCS was computed for each pupil to obtain a Before and After score.
b. Proportion of well-formed sentences - The proportion of well-formed sentences was obtained by dividing the total number of sentences into the number of well-formed sentences. Well-formed sentences were defined as those sentences intuitively acceptable to the analyst and derivable from the rules of the grammar.

c. Error Change Score - Five types of errors were identified and tabulated. These five errors were:

1. Misapplication of a transformational operation;
2. Use of one transformation when another is required;
3. Use of a transformation when none should have been used;
4. Omission of a required transformation;
5. Co-occurrence error: the use of mutually exclusive grammatical elements in kernel sentences or in kernel sentences underlying complex sentences.

After all errors were identified for each subject, Before and After scores were used to determine what changes in error reduction had taken place.

III. SUMMARY AND CONCLUSION:

In terms of SCS scores, the average in the control class was 3.793 as compared to 2.315 for the experimental class, however, the greatest changes were made by only 4 people.

Statistical analysis fails to indicate a significant difference between the control and experimental classes.

In terms of proportion of well-formed sentences, there is a significant difference between the two groups. The increased production of well-formed sentences by the experimental class was significantly greater than that of the control class.

In terms of Error Change Scores, there seems to be a clear relationship between proportion of well-formed sentences and decrease in error production.

The researchers conclude that high school students can learn principles of generative grammar and this knowledge enables them to increase significantly the proportion of well-formed sentences they write.

IV. PERSONAL ASSESSMENT AND IMPLICATIONS FOR RESOLVING MY PARTICULAR PROBLEM:

Any claims made by this study must be tempered with the knowledge that only 41 students were involved. Further, it must also be realized that the University School classes were atypical in many ways including an average IQ for the experimental class of 118.2. Also, it must be realized that we are never told what constituted "the regular curriculum" in the control class.
My particular problem deals with the effect that grammar teaching has on writing. This research indicated that the study of transformational grammar did increase the proportion of well-formed sentences for a rather atypical group of 41 students. I do not feel that the evidence in this study is strong enough for me to categorically advocate the teaching of transformational grammar in elementary or high school language arts classes.
EVALUATIVE ABSTRACT OF:


I. STATEMENT OF THE PROBLEM:

The hypothesis to be tested in this study was that practice in transformational sentence-combining would enhance the normal growth in syntactic maturity and result in the appearance of more mature sentences in students' compositions.

II. PROCEDURE AND DESIGN UTILIZED:

Two hundred forty-seven (247) seventh grade students in the Boston area were placed in the following treatment groups for one academic year:

<table>
<thead>
<tr>
<th>Group Name</th>
<th>Treatment Received</th>
<th>No. of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>Sentence-combining problems</td>
<td>100</td>
</tr>
<tr>
<td>Control</td>
<td>Traditional parsing exercises</td>
<td>100</td>
</tr>
<tr>
<td>Placebo</td>
<td>No grammar (extra instruction in literature and composition)</td>
<td>47</td>
</tr>
</tbody>
</table>

Four different schools were used but only one school permitted the placebo treatment.

Independent measuring of reading comprehension, IQ and writing scores were obtained and on the basis of these, "the total experimental population were regarded as equivalent." All schools adhered strictly to a prescribed English syllabus. All classes devoted 1/3 of the English class time to respective treatments. Also, one hour per week of homework was devoted to treatment activities.

The placebo group studied no grammar but were given more literature and composition time.

The control group studied grammar and usage sections of traditional grammar texts and did approximately 800 practice sentences. (Interesting note: The practice sentences represented immature types which junior high teachers tell their students to avoid.)

The experimental group studied a transformational grammar written by the researcher.

Writing samples were taken by having students receive a topic stimulus and pass in a completed essay by the end of the hour. Nine compositions were written in the first four weeks and the last four weeks of the school year. Narrative, descriptive and expository assignments were used.

Analysis of writing - the first ten T-units from each of the subjects' nine compositions at each test time were listed together, thus giving a sample of 80 T-units per subject. These T-units were further analyzed to differentiate deep-structure embedded sentences from other constituents.
III. MAJOR FINDINGS AND CONCLUSIONS:

Significant growth of syntactic maturity occurred in the writing of the experimental group. Twelve factors of syntactic fluency were analyzed and in all twelve areas showed significant growth at or above the .01 level. In terms of words per T-unit, the experimental group gained 7.47 as compared to the control group which gained 1.86. Using Hunt's normative growth findings, the experimenter found that in all twelve areas observed, the experimental group showed more than twice the rate of normal growth. In all areas analyzed, the experimental group showed significantly more mature development than the control group.

Placebo group - neither the placebo group nor the control group outperformed each other while the experimental group outperformed both.

Mellon concludes that sentence-combining does help students achieve a more rapid syntactic maturity growth. He is quick to point out that he does not see this as a method of teaching composition, but rather it should be used as a linguistic game to help enrich the child's language environment.

IV. PERSONAL ASSESSMENT OF THE STUDY AND IMPLICATIONS FOR MY PROBLEM:

In making an assessment of this study, the English teacher should take into account some of the problems inherent in this study. First of all, extra-curricula language experiences of the students were uncontrolled as were extra reading and writing assignments they chose or were given in other classes. Further, teacher variability was neglected in this study. Certainly teacher personality, classroom methodology and other similar problems need to be taken into consideration.

Other questions that need more thought center around how much sentence combining should be taught, to what age groups, and for how long a period of time. This study did not use low level disadvantaged children and obviously one has to deal with this deficiency in the study.

Another serious problem with this study involves what the researcher does not say. Mellon does not explain in his research that students were asked to learn transformational rules, concepts like appositive noun phrase and participial compound, and a quite difficult set of grammatical rules.

Keeping all these things in mind, I see this research as opening up the area of sentence-combining which Frank O'Hare later capitalized on. Based on later research, it seems that Mellon's experimental group did show an increase in syntactic maturity which can now be considered to be a result of sentence-combining. Previous to the O'Hare study, much of what Mellon suggests had to be tempered with a realization of the faults in the study.

My particular problem is concerned with the teaching of grammar and its effects on student writing. Based on this study alone, I would be leary to suggest that sentence-combining exercises alone would result in greater syntactic maturity growth. But, when one couples Mellon's findings with those of O'Hare, it seems safe to say that a form of sentence-combining loosely based on a transformational generative grammar does result in increased syntactic maturity in writing at least for seventh graders.
The study also shows that the teaching of traditional grammar or no grammar at all, does not result in the significant syntactic maturity growth shown when sentence-combining is used.
EVALUATIVE ABSTRACT OF:


I. STATEMENT OF THE PROBLEM:

The purpose of this study was to determine the effects of oral sentence-structure exercises upon student writing.

II. DESCRIPTION OF PROCEDURE AND DESIGN UTILIZED:

Two randomly matched fourth-grade classes were used in this experiment. Both the experimental group and the control group were taught by one of the researchers.

Each group was given a pre-test consisting of free writing for 1/2 hour based on viewing a film, Spotty, Story of a Fawn. Unlike O'Donnell and Hunt, Miller and Ney showed the film with sound on. The first half of the experiment lasted from September to December. At the end of this time, students were exposed to the experimental methodology four days per week during thirty-seven 30-40 minute periods.

The second half of the experiment went from January to June during which time students were exposed to the methodology two days per week during thirty periods of 40-50 minutes. The classroom procedure for the experimental group consisted of the teacher reading two sentences such as:

The boy put the old man down.
The boy was very tired.

Students were asked to repeat these sentences as they were written on the blackboard. The teacher than combined the sentences aloud saying, "The boy, who was very tired, put the old man down." Students performed a choral reading of this sentence as it was written on the board. Ten sentences of the same kind were then worked on with individual students volunteering the combining answers. Then students and teacher joined in a choral reading. These readings were taken from books the children were using. Written exercises covering the lesson were given out, graded and returned the following day.

III. MAJOR FINDINGS AND CONCLUSIONS:

The effect of these oral and written exercises on the writing of fourth-graders showed that students in the experimental group wrote a greater number of words in a shorter period of time, used the structures that were practiced more frequently than those that did not, and showed a gain in syntactic maturity as defined by Kellogg Hunt.
IV. PERSONAL ASSESSMENT AND IMPLICATIONS FOR MY PROBLEM:

There are several flaws in this study. First, the researcher is basing conclusions on a sample of 24 students. Further, the pre-test and post-test writing sample was taken after a movie was shown that included sound. It seems obvious that some students would immediately write using the narrative style that they heard in the films. Also, like the Bateman-Zidonis study, we are never told what the control group was experiencing during all of this.

Even with these flaws, the study had research to support it and similar and better-designed research has followed and substantiated these conclusions. Once again, considering my question of grammar instruction and effects on writing, it seems apparent that this type of sentence-combining is the best answer yet to helping students write more fluently and more maturely. This study shows that desirable results can be obtained without subjecting students to formal rules and grammatical terminology.
EVALUATIVE ABSTRACT OF:

Frank O'Hare, Sentence-Combining: Improving Student Writing Without Formal Grammar Instruction, No. 15 NCTE Research Report, 1971.

I. STATEMENT OF THE PROBLEM:

This research study sought answers to the following questions:

1. Would seventh graders who practiced a new kind of sentence-combining exercise that was in no way dependent on their formal knowledge of a grammar write compositions that could be described as syntactically different from those written by students quite similar to them in ability who were not exposed to such sentence-combining practice?

2. If there were syntactic differences in their writing, could these differences be called differences in maturity?

3. Would the students who practiced the sentence-combining write compositions that would be judged better in overall quality?

II. DESIGN AND PROCEDURE UTILIZED:

All 83 seventh grade students at Florida State University High School were used in this experiment. Of the four seventh grade classes, two were experimental and two were control classes. The researcher taught one of each as did the English Department head. Both groups were exposed to the same language arts curriculum which included reading skills, free reading, two short units in literature, and units in composition, dramatics, library skills, and language study. "The control group did not study any kind of grammar."

The control group's language study unit consisted of study sheets and exercises on vocabulary, dictionary skills, punctuation, capitalization, and usage. Composition for the control group consisted of 2-4 pages per week of journal writing in which the emphasis was on content. The second half of the composition unit emphasized pre-writing, ideas, style, mechanics, and spelling.

The experimental group was exposed to all of the above units but for a shorter period of time. Both wrote the same amount. In addition, the experimental group worked on 19 lessons which taught sentence-combining techniques. Instruction in these techniques averaged 1½ hours/week with ½ hour/week on related homework. In general, a workbook type approach was used with an emphasis on reward as opposed to emphasizing mistakes. Along with written sentence-combining, the students took part in choral readings of correct sentences, small group discussions, and discussions led by students. This instruction lasted 10-40 minutes per lesson.
What is a T-unit and what is Syntactic Maturity?

A T-unit consists of one main clause and any subordinate clause or nonclausal structure attached to or embedded in it.

Syntactic Maturity

Based on the research of Hunt and O'Donnell, it can be seen that as a child matures, he tends to embed more sentences, which results in an increase in clause and T-unit length in his writing. This developmental trend toward syntactic maturity is measured by six factors:

a. Words per T-unit;
b. Clauses per T-unit;
c. Words per clause;
d. Noun clauses per 100 T-units;
e. Adjective clauses per 100 T-units;
f. Adverb clauses per 100 T-units.

Figures for these six levels of maturity were computed for each student by analyzing the first 10 T-units from each of a student's five compositions. This was done at the beginning and at the end of the experiment using a total of 10 compositions.

Procedure Utilized for Checking Writing Quality

At the end of the school year, 30 compositions were evaluated by eight experienced English teachers. Students in the control and experimental groups were paired in terms of sex and IQ. The judges were asked to simply check the best composition based on ideas, organization, style, vocabulary, and sentence structure. The compositions were typed and spelling and punctuation were corrected before the judges evaluated the student writing.

III. MAJOR FINDINGS AND CONCLUSIONS:

(1) In terms of syntactic maturity, it was found that the experimental group experienced highly significant growth in all six areas of syntactic maturity. (Example-Words per T-unit in the experimental group went from 9.63 to 15.75 while in the control group it went from 9.69 to 9.96.)

(2) Using Hunt's normative data, O'Hare found that his experimental group scored at or above the twelfth grade level in reference to syntactic maturity.

(3) It was found that while students with low IQ's gained significantly in syntactic maturity, those students with high IQ's tended to do even better.
(4) The English teachers evaluating the compositions chose the experimental group writing as better in a proportion of .70 to .29. There was substantial agreement among the eight teachers who judged the overall quality of the compositions.

IV. PERSONAL ASSESSMENT AND IMPLICATIONS FOR MY PERSONAL PROBLEM:

There are several factors that should be considered as one ponders the implications of this study. First of all, one must consider that a relatively small group of students was used in an atypical University High School. Secondly, factors such as individual teacher methodology and personality must be considered. However, O'Hare did consider this and found it not to be significant.

My overall assessment of this study is that it is well done procedurally, statistically, and in terms of design. The study needs to be expanded both in terms of students and in terms of time to see if growth is continued or if sentence combining is subject to the law of diminishing returns.

This study has definite implications on my problem dealing with the effects of grammar study and instruction on written composition. This study suggests that syntactic maturity can be obtained at a relatively early age with much success using this sentence-combining approach without the use of formal grammar instruction.

I believe that this approach to writing is a viable one and one that I would be willing to see implemented in a classroom. Questions such as when and for how long still need to be researched, but the results of this study are certainly impressive.
EVALUATIVE ABSTRACT OF:


I. STATEMENT OF THE PROBLEM:

The purpose of their study was to see if instructional materials created for fourth graders could enhance their normal syntactic development, and if these materials would succeed better with black or with white students.

II. PROCEDURE AND DESIGN UTILIZED:

180 fourth grade students were grouped experimentally and for an academic year were exposed to a sentence-combining curriculum. The experimental grouping dealt only with dividing up students so that there would be two black classes and two white classes. One class of blacks and one of whites made up the experimental group. 155 students formed a control group.

In the experimental group, teachers and students used no grammatical terms. They did practice about a dozen sentence-combining transformations. There were 3 or 4 lessons per week with each lesson lasting about 15 minutes. An overhead projector was usually used. An example such as the following was projected and read twice by the teacher.

I rode in a boat.
The boat leaked a little.
I rode in a boat that leaked a little.

After this example, the teacher read two similar sentences which the children were asked to combine. Students were also asked to break down a teacher-spoken sentence into its deep structures. It was felt that this activity would aid in reading and listening. By mid-year, students were writing sentences that combined four or five short sentences. The rest of the year continued using both the oral and written approaches.

Both experimental and control classes were pre-tested at the start of the school year. The children were shown a short silent cartoon movie and were then asked to tell what the movie was about. The pre-test was analyzed in terms of mean words per clause, mean clauses per T-unit and mean words per T-unit. Another pre-test included a passage made up of short sentences. The instructions were to say the same thing in a better way. (A reading test was also given, but that is not within the scope of my report.)

III. MAJOR FINDINGS AND CONCLUSIONS:

It was found that students were able to make substantially more sentence-embeddings as a result of this curriculum. This was found by analyzing the re-writing instrument. In fact, the mean number of sentence embeddings for the control group was 2½; for experimental students it was almost nine. This
represented a sixth grade syntactic maturity for the experimental group and a fourth grade syntactic maturity for the control group. Black experimental students were below whites in number of embeddings, but were superior to white control students on the re-writing test.

When the free writing pre-test and post-test were analyzed, the researchers found that the experimental group was superior to the control group in terms of T-unit length. As an off-shoot of the experiment, they also found that the curriculum helped the students to be more fluent as measured by the total number of words produced. Comparing blacks to whites on this point of T-unit length, the researchers found that black students were superior to white students.

The conclusion of this study suggests that the curriculum described helped students develop syntactic maturity, it helped them write more fluently, and it holds special promise for working with black students.

IV. PERSONAL ASSESSMENT OF THE STUDY AND ITS IMPLICATIONS FOR MY PROBLEM:

This study is based on sound research which includes that of the two researchers as well as other studies that substantiate this type of curriculum. Problems with the study, however, include the teacher variable. No effort was made to deal with individual teacher differences. Also, the researchers themselves suggest that their free writing pre-test should have been longer than 75 words. It is felt that a longer pre-test would have made the results even more significant than they already are.

The question I am concerned with deals with grammar instruction and its effect on writing. This study furnishes much of the research I need to say that a sentence-combining approach to writing based on transformational generative grammar does succeed in helping students develop syntactic maturity and fluency in writing. Hunt and O'Donnell go a step further in their research by providing specific lesson plans and by introducing statistics that show sentence-combining may have positive effects on others areas such as reading.
PERSONAL SUMMARY AND CONCLUSIONS

At the beginning of this project, I stated that I wanted to find out what effect grammar instruction had on student writing. Through the research studies, I found that the study of traditional grammar does not help a student write better and, in fact, it may hinder his development as a writer. These facts are borne out by the Harris study, the Moffett chapter, and Research in Written Composition.

When talking about writing, one has to decide what criteria will be used for measuring a piece of writing. The Kellogg Hunt study opened up the whole area of syntactic maturity to me. This normative data based on grade levels gave me the necessary background to go on to study the research that expanded on the use of T-units and syntactic maturity.

I found that of all the grammars available, a transformational generative grammar proves to be the best in helping students write in a more mature style. This statement must be qualified by saying that a method of sentence-combining based on a transformational generative grammar is what seems to aid student writing. The rules and terminology are not essential for students to benefit from sentence-combining. The studies of Miller and Ney, Mellon and O'Hare taken together provide undeniable proof that practice in sentence-combining facilitates the growth of syntactic maturity in writing and also aids in helping students write more fluently.

The articles of Hunt and O'Donnell and the chapter by Moffett brought the research cited above down to a practical classroom implementation level. Moffett's sentence-combining games and the Hunt and O'Donnell Curriculum Plan provide the day to day activities for teacher use.

Finally, on a personal note, I now feel confident in saying that I would not recommend teaching traditional grammar, structural grammar, or transformational grammar rules if my ultimate objective was to aid students in writing. Sentence-combining is something I had never been exposed to, but based on the evidence I've read, I would advocate incorporating it into both an elementary and secondary language arts program. There seems to be justification for teaching it traditionally or as a game or incorporate both approaches. Students seem to enjoy this combining process and teachers enjoy the results. I don't think we can ask much more from any educational procedure.