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The Effectiveness of Sentence Combining on the Reading, Writing, and Knowledge of Selected Aspects of English Grammar of Sixth Grade Students

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THE EFFECTIVENESS OF SENTENCE COMBINING ON THE
READING, WRITING, AND KNOWLEDGE OF SELECTED
ASPECTS OF ENGLISH GRAMMAR OF SIXTH
GRADE STUDENTS

THESIS

Submitted to the Graduate Committee of the
Department of Curriculum and Instruction
Faculty of Education
State University College at Brockport
in Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Education

by

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Abstract

Purpose

This study was conducted to determine the effectiveness of sentence combining exercises on the reading, writing, and knowledge of selected aspects of English grammar on sixth grade students. The experiment sought to discover whether or not transformational sentence combining activities could teach grammar more effectively than did the traditional approach of memorizing and identifying terminology. The experiment also sought to determine the possibility of teaching students traditional grammar terminology and at the same time illustrating through sentence combining the function of grammatical operations. Secondly, this study sought to discover a connection between syntactic awareness through sentence combining and reading comprehension. The study further sought to validate the already established finding that practice in sentence combining would enable students to write syntactically more mature sentences. The null hypotheses formulated were: (1) As measured by Hayes Standardized Test on Parts of Speech and a teacher-made test on transformations, there is no difference in knowledge and understanding of grammar between students who have received sentence combining treatment and those who have not. (2) As measured by T-units in writing samples, there is no difference in syntactic maturity of writing between students who have received sentence combining instruction and those who have not. (3) As measured by the Nelson Reading Test (Form A), there

is no difference in the Reading Comprehension scores between students who received sentence combining instruction and those who have not.

Procedure

Daily lessons were taught on sentence combining procedure and transformational grammar. Self-instructional worksheets and task sheets were used in conjunction with daily lessons. For the study, 47 students who composed two intact classes were assigned the control group and 47 students composing two intact classes were assigned the experimental group. The investigator was the instructor for both experimental English classes. Students in the control group were taught by two separate instructors, one for each of the two classes. Control group students were taught grammar by the traditional method. At the end of a six-month period, subjects were asked to take two grammar tests, one standardized and one teacher-made, a reading test, and to produce a narrative writing sample. The T-test for independent samples was applied using group means and standard deviations for each of the three test instruments.

Results

Both hypotheses (1) and (2) were rejected. Since the ability level in control class 1 ("gifted and talented") was significantly higher than control class 2 and the experimental classes, the control group was separated for comparisons. When comparing the experimental classes with control class 2, a class of students of equal ability with the experimental classes, the results of the data showed that the experimental classes were significantly higher than control class 2 using the t test of

significance. There was no significant difference found on the standardized parts of speech test between the experimental classes and the control class 1 ("gifted and talented"), although the mean average was higher in control class 1. However, there was a significant difference on the transformation test between the experimental class and control class 1 in favor of the experimental classes. The experimental classes were also found to be significantly higher on both grammar tests than was control class 2. In comparing the writing samples there was no significant difference between the experimental classes and control class 1. The results, in fact, were nearly equal. However, when comparing the experimental classes with control class 2, the results were significantly higher at the .05 level of significance. Hypothesis (3) was not rejected. The scores for control class 1 were significantly higher than for the experimental classes, and there was no significant difference between the scores of the experimental classes and control class 2. However, the rate of growth in the experimental classes and control class 2 was four times as great as the control class 1 ("gifted and talented").

Conclusion

It was concluded that there is a difference in knowledge and understanding of grammar between students who receive transformational sentence combining instruction and practice and those who are exposed to the traditional approach of memorizing terminology. It was further concluded that sentence combining practice does enable students to write syntactically more mature sentences. The investigation, however,

did not find any difference in reading comprehension between students who had received sentence combining treatment and those who did not. The results in the reading comprehension suggest that the approach and instruments used in the control classes were equally effective in enhancing students' reading comprehension as those used in the experimental classes. Therefore, according to the results of this experiment, while sentence combining practices are an effective approach to teaching English grammar and writing skills, they do not necessarily enhance reading comprehension.

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Chapter I

Introduction

In recent years there has been much controversy over the worthiness of teaching grammar in the language arts curriculum. Much research has been conducted to prove that a knowledge of grammar does not enable a student to write better sentences. Many researchers claim that the time spent teaching grammar is actually detrimental to the student's composing process since it takes time away from the teaching of writing.

Pertaining to the knowledge of grammar and the ability to compose, Wayne O'Neill has the following to say:

. . . because a great deal of research has been spent on such questions (albeit much of it very badly designed research), it is clear that the extent of a young man's knowledge of formal grammar relates at least as well to his skill at pool as it does to his ability to express himself in speech and writing. There is nothing in research or in logic to lead us to believe it should be any different.¹

This paper will not focus on the merits of teaching grammar but rather on the approach to the teaching of grammar.

Noam Chomsky and other researchers at MIT formalized a distinction between deep and surface levels of sentence representation. This theoretical approach to the subject of grammar is known as generative-transformational grammar. Hereafter, the term transformational grammar will be used in this paper. One basic assumption of this approach is that English grammar continually undergoes many changes. A transformational grammarian sees a long, complicated sentence as being derived

from a series of short kernel sentences combined into a single unit. Thus, we get the concept of sentence combining.

Owen Thomas and Eugene R. Kintgen have this to comment on transformational-generative grammar:

A generative grammar is a theory of language--one that seeks to relate sound and meaning, and the core of the theory is the concept of the sentence. More completely, we can note that English, like every other natural language, is complex, flexible, changing, systematic, and the basis of this system is the sentence.²

The theory of transformational grammar initiated the practice of sentence combining exercises. Many studies sought to determine the effect of such exercises on students' ability to compose syntactically mature sentences. The results of these studies were very promising.

In 1959, Bateman discovered that language practice facilitated by the grammar rather than the learning of grammatical formulations is a factor that assumedly influences mature sentence structure. Five years later Bateman and Zidonis conducted an experiment to determine the effect of a study of generative grammar on student writing. This study pioneered further research which focused on sentence structure.³

John Mellon (1967) devised a transformational sentence combining curriculum to demonstrate that the sentence combining practice of the Bateman-Zidonis study, not the learning of grammatical rules per se, had led to greater syntactic maturity in students' free writing.⁴

Kellogg Hunt (1970) concluded that writers' sentences were definitely affected by their syntactic skill, not just by what they had to say. Earlier in 1965 he had developed the T-unit (a minimal terminable unit: one main clause plus all the modifiers attached to or embedded

within it). This unit was used to assess the maturity of students' sentences. Words per T-unit appeared to be the best index of syntactic growth.⁵

Hunt, Mellon, and O'Hare have all shown that there is a distinct relationship between sentence combining practices and the syntactic maturity of students' sentences.

In summary, evidence by recent researchers has shown that sentence combining practice can improve the overall quality of writing by enhancing the syntactic maturity of the students' sentences. This is one of the three main considerations of this study. The other two considerations that will be reviewed in this paper are concerned with reading comprehension and an understanding of English grammar.

Statement of the Problem

This investigation was conducted to determine the effectiveness of transformational sentence combining on the reading comprehension, writing, and the knowledge and understanding of English grammar of sixth grade students.

The idea that sentence combining exercises increase the syntactical maturity of students' sentences has already been documented by research.

At the conclusion of his research study on sentence combining exercises, O'Hare hinted at the relationship between sentence combining and reading ability.⁶ Researchers are currently investigating this possibility. These studies will be summarized later in Chapter II, "Review of the Literature."

Since the original purpose of developing sentence combining exercises was to utilize the functions of grammar rather than teach grammar, little interest has been given to research in this area.

This present study was undertaken to answer the following questions:

1. Can transformational sentence combining activities teach grammar more effectively than the traditional approach of memorizing and identifying traditional grammatical terminology?
2. Would it be possible to teach students traditional grammatical terminology and at the same time illustrate through sentence combining the function of grammatical operations?
3. Is there a connection between syntactic awareness and reading comprehension? Will sentence combining exercises increase students' reading comprehension?
4. If students were taught grammar by means of transformational sentence combining activities, would they be able to write syntactically more mature sentences?

The results of this study should help to determine the usefulness of sentence combining exercises.

Limitations

This study began as an attempt to teach students grammar by means of sentence combining exercises. The study was not meant to be an experiment to teach better writing skills nor was it meant to enhance reading comprehension. Assessments were made in these areas to determine the effects of this approach to teaching English grammar.

The subjects in this experiment were ninety-four sixth grade students. The students in the experimental group were made up of two

heterogeneous classes who were given sentence combining exercises. The control group consisted of one heterogeneous class and one high average class. The high average class was labeled "gifted and talented." The experiment began in mid October and ended in late April.

Definition of Terms

Sentence Combining. Sentence combining is the practice of combining several basic kernel sentences into a single more complex sentence. It is based upon the theory of transformational grammar. According to Frank O'Hare, "Sentence combining concentrates on student success. It not only has students write, it shows them how."⁷

The following is an example of a simple sentence combining activity, illustrating a relative clause:

The man sells insurance.
The man is friendly. (who)

Since the sentence combining activity is signalled, the student does not have a variety of ways to combine these thoughts. The solution would have to illustrate a relative clause.

Solution: The man who sells insurance is friendly.

If, however, the problem was presented without directives, the students would be free to choose their own embedding preferences. A solution to the unsignalled problem could result in the use of a noun modifier (adjective).

Solution: The friendly man sells insurance.

Transformational Grammar. Transformational grammar is based on four linguistic concepts.

1. Syntax (word order)
2. Phonetics (sound)
3. Semantics (meaning)
4. Morphology (study of words)

Since our language continually undergoes change, transformational grammarians believe we need to look at relationships among words and sentences, and also have an awareness of "deep structure." To understand what is meant by deep structure, one needs to consider these two sentences:

1. John is eager to please.
2. John is easy to please.⁸

The first sentence contains the following meanings: John is eager. John pleases. The deep structure in the second sentence carries these meanings: Someone pleases John. John is easy.

The kernel sentence is the basic unit in transformational grammar. All other structures are embedded within the kernel or base sentence. These embeddings are called transformations. The transformations correlate with traditional grammar terminology.

Summary

Although there has been much controversy among educators concerning the benefits of teaching grammar, current investigations have indicated promising results from the use of sentence combining, an exercise technique directly related to transformational grammar. Conclusive evidence from the studies of Hunt, Mellon, and O'Hare have validated the premise that there is a relationship between the use of sentence combining activities and the students' ability to write syntactically more mature sentences. In addition, researchers are now seeking to

prove that a relationship between sentence combining and reading comprehension exists. This particular study was conducted specifically to determine the benefits of sentence combining activities on the knowledge and understanding of grammar. The study was limited to sixth grade students in the West Avenue School in Hilton, New York. The study was not meant to enhance the reading comprehension and writing skills of the sixth grade students although assessments in these areas were done to determine the effectiveness of the activities. The main intent of this investigation was to develop an effective and meaningful approach to the teaching of grammar. The results of this study should help in evaluating the usefulness of sentence combining activities.

Chapter II

Review of the Literature

Sentence Combining and Writing

Many investigators examined the relationship between sentence combining and students' writing. Two studies stand out from among the many with regard to the effectiveness of design and significant results of the study.

1. The Mellon Study.

In 1967 John Mellon devised a transformational sentence combining curriculum in an attempt to show that the sentence combining practice of the Bateman-Zidonis study, not the learning of grammatical rules per se, had led to a greater syntactic maturity in students' free writing. Although Mellon questioned the importance of grammatical rules, his own study involved a great deal of grammatical terminology which his students were expected to understand.⁹

The population for Mellon's study consisted of 247 seventh grade students in urban, suburban, and private schools. All students in the study appeared to be of equal ability. There were three separate treatments. Five experimental classes studied a year-long course in transformational grammar and sentence combining exercises. Five control classes studied a course in traditional grammar. In addition, one "placebo" group of 47 students received no grammar instruction but had extra classes in literature and composition. Mellon selected the first

ten T-units from each of nine compositions that the students wrote in the first four weeks of school and compared them with 90 T-units written under identical circumstances eight months later. He then made quantitative comparisons on the basis of twelve factors of syntactic fluency. These factors included number of words per T-unit, the subordination-coordination ratio, frequency of nominal and relative clauses and phrases, frequency and size of clusters, and number, frequency, and depth of embeddings. He made an overall qualitative comparison of a small sample of writings from each of the three groups.

As a result he found that on all twelve quantitative counts the experimental group scored significantly higher than did the control group. In addition, the experimental group gained from 2.1 to 3.5 years in syntactic growth over the norm given by Hunt (1965) for average yearly growth between grades 4 and 8. A two-year gain was established at the outset of the experiment as the minimum criterion for a positive finding.

Mellon concluded that if this rate of enhancement over "normal" syntactic growth could be sustained, a ninth grader, completing a three year program of sentence combining begun in seventh grade, could write with the syntactic maturity of a high school senior. He also recommended that sentence combining practice might serve as a vehicle for vocabulary development and that it may contribute to the development of reading ability.¹⁰

Although Mellon found positive results from his experiment, the actual design of his experiment left researchers questioning the exact cause of his results. Since Mellon's experimental groups received both

the study of grammar and sentence combining activities, questions were raised as to which factor actually determined the growth of syntactic fluency.

2. The O'Hare Study

The results of Mellon's experiment led to Frank O'Hare's study published in 1973. O'Hare determined the value of sentence combining by duplicating Mellon's experiment in a grammar-free text. The population for this experiment consisted of 83 seventh grade students, with an average I.Q. of 111.6, who were randomly divided among two experimental and two control classes. The experimental group studied a workbook that contained sentence combining exercises for a period of eight months. For the remainder of the time, the experimental group studied a curriculum identical to that of the control group. The control group did not study any grammar at all; their curriculum consisted of the following units: literature, composition, and a language unit which included vocabulary study, dictionary skills, punctuation, capitalization, and usage.

Writing samples of five hundred words were collected from each student in early October and again in late May. O'Hare's findings showed that the experimental group had experienced significant growth at the .001 level on all measured factors of syntactic maturity. The experimental group's compositions were also found to be "significantly better" in overall quality than those of the control group.¹¹

Appendix A demonstrates the differences between the Mellon and O'Hare Sentence Combining Activities.

Further Research

Subsequent to the findings of Mellon and O'Hare, other individuals have conducted studies to determine the merit of sentence combining as a tool for teaching writing.

Richard Haswell

In the fall of 1977 and spring of 1978-79, Richard Haswell used an experimental series of sentence combining exercises with three sections of freshman composition at Washington State University. Two control sections were established in the spring of 1978-79. The total population consisted of 99 students, 56 experimental and 43 control. All students were enrolled in the course as a requirement for graduation. According to Haswell, the subjects most likely had a normal range of writing abilities. Control sections were taught in the traditional way of assigning expository and argumentative essays, classroom discussion of professional writing, occasional writing conferences and in-class writing, and the use of writing textbooks without sentence combining material. The experimental groups received all the instruction that the control groups had plus sentence combining treatment, consisting of paragraph rewriting exercises, one exercise for twelve consecutive weeks. The results were that the students demonstrated significant gains in average words per clause and words per T-unit. These gains were largely confined to students who scored low on syntactic maturity measures at the beginning of treatment. Furthermore, above-mean experimental students showed a minor gain in T-unit length but a drop in clause length. Haswell concludes that perhaps other more intensive procedures would

improve the syntax for a broader range of students. Yet, "A teacher may not want to subject half of a class, and the better performing students at that, to a procedure they perhaps can do as well without."¹² An alternate hypothesis, suggested by Haswell's study, is that syntactic performance remains bound to cognitive growth. Therefore, successful sentence combining programs in college will function mainly to bring lagging students up to norm.¹³

Thomas C. Cooper

A study done by Thomas Cooper in the spring of 1977 was undertaken to expand the field of sentence combining to determine whether the practice would increase the rate of written syntactic development of college students of French, German, and Spanish. A total of 325 students who enrolled in third quarter French, German, and Spanish at the University of Georgia comprised the population of the experiment.

Students in the control group engaged in the following activities: They completed the last third of a basic traditional grammar, which involved reading short passages about foreign civilization and culture as well as answering oral and written questions over the selections. Grammar presentations were given with various oral and written exercises. German students used a review grammar. Students in all language sections read from intermediate level anthologies. They answered oral and written questions, based on content and interpretation. Listening comprehension, speaking, reading, and writing were equally stressed. In lieu of sentence combining, the students completed exercises from their text, answered questions concerning reading selections, and did other assignments.

The experimental group used the same texts and were taught according to the same approach as was the control group. The only difference was in the writing activities which consisted of sentence combining practice. Both groups did an equal amount of writing.

During the first and last weeks of the quarter, the same version of two teacher made tests were administered to all students in the study. One of the tests involved rewriting two short paragraphs consisting of kernel sentences. In the other test, the students were given a list of words dealing with urban living and were asked to write an essay about a sight-seeing trip to a large city. An oral test was administered at the beginning and end of the quarter in the language laboratory. On individual cassette tapes students described a disco party.

Writing samples were measured for syntactic maturity as were speech samples. Analysis of the writing showed that students in the experimental group used more complex syntactic patterns than did the control group. The results of this experiment also indicated that the experimental students were able to express themselves orally in an advanced fashion. Furthermore, students in the experimental group were more articulate in the oral test than their counterparts, according to faculty judges. The results, then, seemed to indicate that sentence combining facilitates achievement of a higher degree of syntactic maturity than might be normally expected. This study not only demonstrated that the concept of syntactic maturity is applicable to second language learning, it also showed positive evidence that sentence combining is an effective approach for teaching some aspects of writing to foreign language students.

Finally, this research may also indicate a positive correlation between writing development and gain in oral skills.

As a result of his findings, Cooper suggested that the use of sentence combining techniques to teach reading skills could be explored.¹⁴

Other Viewpoints

Although sentence combining seems to have earned a place in the language arts curriculum, there are those who criticize this approach.

James Moffet is one critic who opposes the use of sentence combining on the basis that any nonnaturalistic approach to language development should be avoided. However, he does recommend a sentence writing activity which is similar to sentence combining activities, involving practice in expanding and filling in the telegraphic speech of babies.¹⁵

Francis Christensen offers another critical viewpoint of sentence combining. His argument is that the cumulative sentence, rather than the embedded sentence, is more characteristic of modern prose styles. Yet, embeddings and accumulations can occur in the same sentences.¹⁶

In his article, "The Sentence Combining Myth," Robert Marzano states that the sentence combining movement is gaining momentum with little validation by research.¹⁷ He does not believe that significant correlation proves causation. It is interesting to note that Marzano completed his own study in which 100 compositions were examined and rated for overall quality, according to the holistic method. The correlation between the quality ratings for the compositions and the sentence combining frequency were found to be significant. Marzano concludes, "Based on past and present research, the most generous statement

one can make concerning sentence combining practice is that it might improve overall quality but only to a certain point."¹⁸

While these critics, and perhaps others, find fault with these activities as a pedagogical approach to understand and use language, a great number of educators have already incorporated sentence combining in their daily lesson plans.

Says Charles Cooper, "My considered opinion is that teachers should be using these sentence combining problems on a regular basis with their students."¹⁹ Cooper believes that sentence combining will increase the child's facility with the nominal and adjective structures of written English.²⁰

In a paper entitled, "Back to Basics and Beyond," William Strong emphasizes the merits of sentence combining. He points out, "If sentence combining works because it trains a kid to hold longer and longer discourse in his head, to embed and to subordinate at greater depth as a means of expressing thought, it is indeed something more than a return to basics."²¹ He goes on to say that sentence combining provides a context in which practical syntactic choices are the exclusive focus, and it thus enables kids to learn a great deal about the depth of their own linguistic repertoires.

William Smith states that students use language naturally, not by overtly invoking rules. In his article, "The Potential and Problems of Sentence Combining," Smith reports that Sentence Combining allows us to show (not tell) students how their rules work in real language.²²

"Sentence Combining does not teach rules of English syntax," states Smith, "but it does allow the student to focus intensely on the rules at work and gain critical control of their syntax."²³

Sentence Combining and Reading Comprehension

The link between sentence combining and the ability to compose syntactically mature sentences has been well documented. Researchers are now seeking to show a connection between improvement in reading comprehension and sentence combining.

In 1975 Philip DiStefano and Shelia Valencia conducted an experiment to investigate the effect of syntactic complexity on reading comprehension. The basic assumption in this study was that if syntactic complexity does influence the readability level, the students' comprehension scores should decrease as sentence complexity increases. However, if syntactic complexity does not influence readability, students' comprehension scores should remain relatively unchanged across reading passages of variable degrees of syntactic complexity.

Sixty-five seventh grade students who compose the entire grade level population from a school in eastern Colorado were subjects for this study. Each student took a short practice cloze test, then cloze tests for the baseline passage, and two of the four test passages. The practice passage was given to familiarize students with the cloze procedure before beginning the tests. All students were given the time they needed to complete the comprehension tests.

The results of this study support the hypothesis that syntactic complexity does influence comprehension ability. Subjects working at their instructional reading level had more difficulty completing cloze tests at the seventh grade level as the syntactic complexity increased. The subjects at the frustration reading level did poorly on all tests, and the subjects at the independent reading level performed very well on all tests.²⁴

Hughes Experiment

T. O. Hughes (1976) experimented with sentence combining as a means for improving reading comprehension. He conducted a ten week study using seventh grade classes. The experimental class received 37 hours of sentence combining practice while the control group participated in a composition unit focusing on newspapers. Subjects were tested on the speed and accuracy subtest of the Gates MacGinitie Reading Tests, four measures of the Miscue Analysis, and a cloze test.

The results of the Gates MacGinitie revealed a trend toward the experimental group, but the gain was not significant. The results of the Miscue Analysis which indicates the ability to find the largest meaningful unit were significant at the .05 level, favoring the experimental group. Syntactic semantic integration ability was measured by the Miscue Comprehension and a cloze test. Results of the Miscue were significant at the .05 level in favor of the experimental group. The results of the cloze test were not significant but did show a trend in favor of the experimental group.

In general, the greatest gains from sentence combining appeared among the lower and middle group of readers. Comprehension increased more slowly than did a knowledge of grammatical relations, and Hughes felt a new study might try to determine how sentence combining and a matching of students' interest would interact to improve comprehension.²⁵

W. Smith Study

In 1970, W. Smith conducted an experiment to study the effects of transformed syntactic structures on reading. He selected 120 students

at random from grades 4 through 12. Students were required to perform a cloze procedure task on four passages reflecting four levels of syntactic complexity; fourth grade, eighth grade, twelfth, and adult level. The reading material was developed on the basis of findings from Hunt's work (1965) on syntax in written composition. Vocabulary, content, and sentence length were held constant across all passages. Smith interpreted his findings to suggest that the syntactic level at which the student writes influences or is influenced by the syntactic level at which he reads. Thus, students' written compositions are a good indicator of the structures that they comprehend easily.²⁶

W. Fagan Study

A year later in 1971, William Fagan sought to determine if reading comprehension was affected by the number and types of transformations. The subjects in his experiment were 440 children in grades 4, 5, and 6. They were tested by a cloze procedure on a number of passages at the fourth grade level. The passages reflected major types of transformations, simple types of transformations, and position shifts. As a result, Fagan discovered that embedding and deletion transformations tended to make sentences and passages more difficult for the children. In addition, the number of transformations within a sentence was not as important as the type of transformation. Sentence difficulty was more dependent on the difficulty of specific transformations than on the difficulty of the passage. Fagan's explanation for this was based on the redundancy of language at the paragraph level. Therefore, his conclusion was that reading comprehension appeared to depend upon the type of syntactic structure of the written language as well as on the degree of redundancy.²⁷

Sentence Combining and a Knowledge of Grammar

In the past two decades researchers of English education have been intent on seeking to prove that a relationship between grammar and writing does not exist. Therefore, there appeared to be little interest in attempting to find ways to improve upon the teaching of knowledge of grammar in the language arts curriculum. Yet, those researchers who have studied the effects of transformational sentence combining point to the fact that students who are given practice in sentence combining exercises have a better understanding of how grammar works.

William Smith comments on this issue in his article, "The Potential and Problems of Sentence Combining."²⁸ He observes:

Given that our students know the rules of English syntax, sentence combining cannot be said to teach those rules, but sentence combining allows them to focus intensely on the rules at work and gain critical control of their syntax.²⁹

In effect, it would seem that the procedure of sentence combining allows students to use effectively the rules of grammar rather than simply to learn them. This study was undertaken to show that while sentence combining enables students to understand the function of grammar, it simultaneously increases the knowledge of it.

Summary

Studies on sentence combining and writing pioneered by Hunt, Mellon, and O'Hare have substantiated a positive relationship between sentence combining practice and ability to compose syntactically mature sentences. More recent experiments have focused attention to the effects of sentence combining on reading comprehension. Results in this area show

a trend towards a positive relationship between complexity of sentence structure and reading comprehension. Since sentence combining enables students to write syntactically more mature sentences, the assumption is that they should also be able to understand more complex structures when they read. As W. Smith notes, "The syntactic level at which the student writes influences or is influenced by the syntactic level at which he reads."³⁰ Finally, although there has been little interest in proving a positive relationship between sentence combining and English grammar, it seems reasonable to expect a positive relationship in this area. Since sentence combining in effect puts the rules of grammar in action, the students can more readily understand grammatical principles.

Chapter III

Experimental Design

This chapter will discuss the sources of data, procedure, and instruments used in the study.

Sources of Data

Ninety-four sixth grade students from the West Avenue School in Hilton, New York, made up the subjects in this study. Forty-seven students comprised the control group, and forty-seven students were given to sentence combining treatment in the experimental group. The control group and the experimental group both consisted of two classes of sixth grade students. The control group and the experimental group were not equated in ability in that one of the control classes had significantly higher I.Q. scores, and had been labeled "gifted and talented." The other control class was heterogeneously mixed. Students in both experimental groups were heterogeneously mixed. The subjects came from a generally rural community west of Rochester.

Procedure

The investigator was the instructor for both experimental English classes. Several worksheets were devised in which one or two transformations were explained in detail. Following the explanation were sentence combining problems relating to the exact transformations explained. Students were not only asked to combine the sentences but also to label

the transformations involved. In combining these two separate processes, the instructor had hoped to link the knowledge and practical use of grammar. These were used in conjunction with lessons on related subject matter. Subsequent to these activities, students were given a series of isolated sentence combining problems, both signalled and unsignalled. Finally, they were asked to create their own sentence combining problems.

The program began in mid-October and continued into the first week of April, culminating with the final test on grammar. The program was interrupted by a three-week rehearsal for a Christmas play in December. Prior to the sentence combining program, students were taught parts of speech and introduced to traditional diagramming. In addition, they read short stories and completed four pieces of writing in response to the literature. These activities comprised the language arts/English curriculum prior to the testing in April.

Students in the control group had two separate instructors, one for each class. Both instructors in the control group had effective teaching strategies and were skilled in establishing rapport with the students. Students in the control group received instruction in the following areas: parts of speech, English usage, capitalization, punctuation, literature, creative writing, and some exposure to writing, using the Individualized Language Arts approach.

Instruments

The writer prepared several worksheets which explained various transformations and gave practical sentence combining problems pertaining to the specific transformations described. Students were given the

lesson on each separate transformation and then given the worksheet in which the entire lesson was reviewed. After reading the review, they were asked to combine sentences relating to the transformations.

Students were asked to create their own sentence combining problems, illustrating specific transformations. These problems were edited and made into worksheets which were used as homework assignments.

At the end of the treatment period, students were evaluated in four separate areas.

In an effort to measure reading comprehension, the Nelson Reading Test, Form A, was administered to all classes participating in this experiment. The same test had been administered to the participating classes in September so that a pre and posttest evaluation could be made.

Writing samples were taken and rated according to words per T-unit. Since no samples were taken prior to treatment, this was posttest evaluation only.

Two separate English grammar tests were given. The first was a standardized parts of speech test published by Hayes Publishing Company. The second test dealt with parts of speech as they related to the transformations taught. These tests also were posttest evaluations only.

Summary

Lessons on transformations and teacher-made worksheets illustrating transformations through sentence combining problems comprised the majority of the treatment instruction for the experimental group. Worksheets using student made problems were also used. In addition, students were given some practice in breaking down a mature sentence into several kernel sentences.

Chapter IV

Results of the Study

Analysis of Test Scores

Reading Comprehension

Table 1(a) shows a comparison of the means and standard deviation for the Nelson Reading Comprehension Scores. The mean for the control group was greater than the mean for the experimental group and found to be significant at the .05 level of confidence.

The students involved in the control class 1 were of above average ability, and, in fact, significantly higher than both experimental classes and control class 2 at the start of the study. They comprised the class labeled "gifted and talented." Students in the experimental classes and control class 2 were equated in ability.

Table 1(a) shows that the growth rate for the experimental group and the second control class was more than four times as great as the growth rate for the "gifted and talented" class.

It should be noted in Table 1(b) that the gains made by the experimental group were only slightly greater than the gains made by control class 2. Thus, the experimental group and control class 2 show a nearly equal growth rate.

Table 1(a)

Comparison of Reading Comprehension
Pretest and Posttest Scores

	CONTROL			EXPERIMENTAL		
	Class 1 (G & T)	Class 2	Mean	Class 1	Class 2	Mean
Pretest Mean	54.69	34.00	44.35	34.56	32.75	33.65
Posttest Mean	57.03	42.29	49.66	44.26	41.20	42.73
Raw Growth Score	2.34	8.29	5.32	9.70	8.45	9.12
Grade Equivalent Score	.47	1.72	1.10	1.90	1.64	1.77

Table 1(b)

Comparison of the Reading Comprehension Scores of the
Experimental Groups and Control Class 2

	Control Class 2	Experimental Class 1 & 2
Pretest Mean	34.00	33.65
Posttest Mean	42.29	43.75
Raw Score Growth	8.29	10.08
Grade Equivalent Growth	1.72	1.77

Writing

Table 2(a) shows a comparison of the mean scores of the T-unit assessment between the experimental and control classes. The mean for the experimental classes was slightly higher than the mean for the control classes, and at the .05 level of confidence, the results showed no significant difference between the two groups. The formula for the Analysis of Covariance was applied to the results, but the difference between the results of the two formulas was negligible and not significant at the .05 level. The differences in the Critical F between the results of the Analysis of Variance and the Analysis of Covariance can be seen in Tables 2(b) and 2(c).

Since the control class 2 and the experimental group were equated in ability, the scores of these classes were applied to a t-test to determine whether or not the difference in the scores was significant. The following formula was used in this comparison:

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{\frac{(Sx)^2}{N_{x_1}} + \frac{(Sy)^2}{N_{x_2}}}}$$

Table 2(d) presents this comparison as a Post-hoc Analysis. The results favored the experimental group and were significant at the .05 level.

Table 2(a)

Comparison of Writing as Assessed by T-Units Between
Experimental and Control Groups

	Control Group			Experimental Group		
	Class 1 (G & T)	Class 2	Mean	Class 1	Class 2	Mean
Words Per T-Unit	10.34	8.56	9.45	9.93	9.84	9.88

Table 2(b)

Analysis of Variance

Source	SS	df	MS	F
Treatment	0.33	1	0.03	0.01
Error	352.94	92	3.84	
Total	352.97	93		

Crit F = 5.22 at .05

Table 2(c)

Analysis of Covariance

Source	SS	df	MS	F
Treatment	0.98	1	0.98	0.28
Error	323.59	91	3.56	
Total	324.57	92		

Table 2(d)

Post-Hoc Analysis Comparison of T-Units
Between Experimental Classes 1 & 2
and Control Class 2

	Control Class 2	Experimental Classes 1 & 2
Words Per T-Unit	8.56	9.88
Standard Deviation	1.44	1.53

Critical $t = 2.015$ $t = 9.69$
Significant at the .05 level

English Grammar

Table 3(a) shows a comparison of the experimental group and the control group on a test which evaluated students' knowledge of specific transformations. Presented in the table are the mean scores on the test and the standard deviation for the two groups.

Table 3(b) shows a comparison between the experimental group and control class 1 ("gifted and talented") on the transformation test.

Table 3(c) shows comparisons of the experimental group and control class 2. The formula for the t-test was applied to the scores in these tables, and the results were significant in all three comparisons at the .05 level of significance.

Tables 4(a), 4(b), and 4(c) show comparisons between the control classes and the experimental classes on a test which measured students' knowledge and understanding of parts of speech. The mean and standard deviation are shown in each table.

Table 4(a) shows a comparison of the experimental group and the control group on the Parts of Speech test. The results favored the experimental group but were not significant at the .05 level of significance.

Table 4(b) shows the results of the experimental group and control class 1 ("gifted and talented") on the Parts of Speech test. The results favored the "gifted and talented" class; however, the difference was not found to be significant at the .05 level of significance.

Table 4(c) compares the experimental group with the control class 2. The experimental group and control class 2 were considered equated in ability. The results favored the experimental group and were found to be significant at the .05 level of significance.

Table 3(a)

Comparison of Experimental Group and Control Group
on Transformations Test

	Control	Experimental
Percent Mean	17.2	53.95
Standard Deviation	9.6	16.4
Critical $t = 2.015$ $t = 13.3$ Significant at the .05 level		

Table 3(b)

Comparison of Experimental Group with Control Class 1
(Gifted and Talented) on Transformations Test

	Control Class 1	Experimental 1 and 2
Percent Mean	16.82	53.95
Standard Deviation	6.9	16.4

Table 3(c)

Comparison of Experimental Group and Control Class 2
on Transformations Test

	Control Class 2	Experimental
Percent Mean	17.60	53.95
Standard Deviation	12.4	16.4

Table 4(a)

Comparison of Experimental Group and Control Group
on Parts of Speech Test

	Control Group	Experimental Group
Percent Mean	77.00	79.83
Standard Deviation	14.7	15.87
t = 0.8984 *Not significant		

Table 4(b)

Comparison of Experimental Group and Control Class 1
("Gifted and Talented") on Parts of Speech Test

	Control Class 1 (Gifted & Talented)	Experimental Group
Percent Mean	87.00	79.83
Standard Deviation	14.66	15.87
t = 1.872 *Not significant		

Table 4(c)

Comparison of Experimental Group and Control Class 2
on Parts of Speech Test

	Control Class 2	Experimental Group
Percent Mean	71.00	79.83
Standard Deviation	17.74	15.87
t = 2.3298 *Not Significant at .05 level		

Chapter V

Summary and Conclusion

This experiment sought to determine the effectiveness of sentence combining on the reading, writing, and English grammar of sixth grade students. The results of the study can be looked at from several different ways.

1. When comparing the experimental group with both control classes, it was shown that the classes which received sentence combining practice were better able to identify specific transformations in sentences.

2. When comparing the experimental group with control class 1, which was the "gifted and talented" class, there was no significant difference in their ability to identify parts of speech. In fact, the "gifted and talented" class actually had the higher mean score. This performance was to be expected since this class was a higher ability group of students to begin with, and they had received instruction in parts of speech. The fact that there were not significantly higher than the experimental classes is noteworthy.

3. When comparing the experimental group with control class 2, the difference in scores was significant, favoring the experimental classes. Therefore, on the basis of these results, it would appear that sentence combining practices can be an effective approach to teaching grammar.

4. When comparing the reading comprehension between the experimental group and the control group, the results were significant in favor of the control group. Again, this performance was to be expected since the "gifted and talented" class was already established as a group of higher level ability students. However, when the experimental classes were compared only with the control class 2, the results were nearly equal. Thus, it cannot be said by the results from the experiment that practice in sentence combining will enhance reading comprehension growth.

5. The comparison of the experimental group and the control group on the writing samples showed no significant difference, even though the data was put through the formula for the analysis of covariance. The purpose of this formula is to adjust for differences in ability. The difference in the adjustment, however, was negligible. The scores for the experimental classes and the "gifted and talented" were very nearly equal with the "gifted and talented" class slightly edging the experimental group. However, when the t-test for significance was administered to compare the scores of the experimental group and the control class 2, the scores for the experimental group were found to be significantly higher. Thus, it can be said from these findings that sentence combining can be used as an effective strategy to enhance writing skills.

The results of this experiment determine that sentence combining is an effective tool in teaching grammar and writing skills. The results did not indicate in any way that sentence combining practices affect the students' reading comprehension. Perhaps this could be discovered using a different design with less emphasis on transformations and grammatical terminology.

Notes

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⁴Sandra Stotsky, "Sentence-Combining as a Curricular Activity: Its Effect on Written Language Development and Reading Comprehension," Research in the Teaching of English, Spring, 1975, pp. 30-71.

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⁶Frank O'Hare, Sentence Combining: Improving Student Writing Without Formal Grammar Instruction. (Urbana, Illinois: NCTE, 1973), p.77.

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⁸Noam Chomsky, Aspects of the Theory of Syntax (Cambridge: The M.I.T. Press, 1965), pp. 64-106.

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¹²Richard Haswell, "Within Group Distribution of Syntactic Gain Through Practice in Sentence Combining," Research in the Teaching of English, February 1981, pp. 87-96.

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- ¹⁹Charles R. Cooper, "An Outline for Writing Sentence Combining Problems," English Journal (January, 1973), p. 98.
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APPENDIX A

Differences Between the Mellon and O'Hare
Sentence Combining Activities

APPENDIX A

DIFFERENCES BETWEEN THE MELLON AND O'HARE
SENTENCE COMBINING ACTIVITIES

MELLON (1967)

- A. SOMETHING use to anger Grandfather no end. (T:exp)
 SOMETHING should be so easy. (T:fact-TP exp)
 The children recognized SOMETHING. (T:infin)
 SOMETHING was only a preliminary to SOMETHING
 sometime. (T:wh)
 He insisted SOMETHING. (T:gerund)
 They had enough peppermints. (T:fact)
 He gave them still another handful. (T:gerund)
- B. It used to anger Grandfather no end that it should be so
 easy for the children to recognize when his insisting
 that they had had enough peppermints was only a
 preliminary to his giving them still another handful.
-

O'HARE (1973)

- A. I get nervous every time Ben goes for a swim in the
 ocean because he does not believe SOMETHING.
 SOMETHING is impossible. (THAT)
 The undertow sweeps him out into deep water. (IT-FOR-TO)
- B. I get nervous every time Ben goes for a swim in the
 ocean because he does not believe (that) it is possible
 for the undertow to sweep him out into deep water.

APPENDIX B

Worksheets on Sentence Combining and
Transformational Grammar

APPENDIX B

WORKSHEETS ON SENTENCE COMBINING AND TRANSFORMATIONAL GRAMMAR

The word transformation means a change in form. Our English language continually undergoes change. The purpose for the study of grammar is to show the relationships among sentences and how they produce meaning. (Semantics)

The study of transformational grammar also seeks to show how this is done through the process of word order. (syntax)

Other components of transformational grammar include phonetics (the way we pronounce words) and morphology (study of words).

When we say or write even a simple sentence, several transformations can occur. These are called deep structures and they give meaning to the sentence. For example, consider the sentence: The dog barked loudly. This sentence conveys three different thoughts.

1. The dog barked. (kernel)
2. The dog is big. (Adjective)
3. The bark is loud. (Adverb)

Two transformations have occurred.

1. T - Noun Modifier

When an adjective comes directly before the noun - the transformation is called T-noun Modifier.

2. T - Adverb

This transformation occurs when a word is used to add to the meaning of a verb, adjective or adverb.

Directions: Combine the following sentences to create one of the two transformations. Label the transformation.

A. Julie sang a song.

The song is sweet. _____

B. My brother ran the race.

The run was swift. _____

T-Attributive

T-Possessive

T-Attributive: The preposition with gives attributes to nouns and noun phrases.

Example: The boy has blond hair. The boy is my brother.

The boy with blond hair is my brother.

T-Possessive: Whenever ownership is embedded within a noun phrase, a possessive transformation has occurred.

Example: Mary has a coat. The coat is in the car.

Mary's coat is in the car.

Directions: Combine the following sentences by incorporating one of these two transformations.

1. T-Attributive
2. T-Possessive

Label the transformations.

Transformations

- A. The man has a green coat.
The man is a spy.
- B. The dog has a white chest.
The dog is unfriendly.
- C. Robert has a bike.
The bike fell over.
- D. The lady has a hat.
A bird landed on the hat.
- E. The baby has a diaper.
The diaper needs to be changed.

T-Relative Clause

T-Relative Clause Deletion

T-Relative Clause: A relative clause begins with a relative pronoun, The relative pronouns are: Who, which, what, and that. In the sentence - She knows the man who hangs wallpaper. - (who hangs wallpaper) is the relative clause.

T-Relative Deletion: When the relative pronoun and the verb tense marker are deleted from a sentence, the transformation that occurs is a relative deletion. (T-Rel. Del.)
 She knows the man who hangs wallpaper.
 She knows the man hanging wallpaper.

Directions: Combine the following sentences which are examples of a Relative clause or a Relative Deletion (T-Rel. Del.)
 Label the transformations.

- | | Transformations |
|--|-----------------|
| A. The man sells insurance.
The man is friendly. (ing) | _____ |
| <hr/> | |
| B. The lady cleans the house.
The lady is my mother. (who) | _____ |
| <hr/> | |
| C. The bird flies over your head.
The bird is a dove. (ing) | _____ |
| <hr/> | |

T-Subordinate Clause

When a clause is introduced by a subordinate conjunction such as: when, since, because, if, etc. - a dependent clause is created.

(A dependent clause cannot stand alone.)

Example: When I go home

Even though a noun and verb are present in the clause, the thought is still not complete. This is called a subordinate clause. An independent clause (one which can stand alone) must accompany the subordinated clause.

Example: When I go home, I clean the house.

Now the thought is complete, and the sentence structure formed is called a complex sentence.

Directions: Combine the following sentences to form a subordinate clause transformation. Subordinate conjunctions: if, when, as, though, because, since.

A. It is raining _____
We cannot have a parade.

B. I go to school.
I study hard.

C. I am a teacher.
I have to correct tests.

D. I cannot go to the store.
I am sick.

E. You told the truth.
You will not be punished.

T-Compound

Co-ordinating conjunctions are used for compounding words or sentences.

and, but, or, nor, for, so, yet

Co-ordinating conjunctions can form compound subjects, verbs, direct objects, and compound sentences.

Examples:

I walked to town.

Jason walked to town. Compound Subject

Jason and I walked to town.

Vicky sang.

Vicky danced. Compound Verb

Vicky sang and danced.

We bought pens.

We bought pencils Compound Direct Object

We bought pens and pencils.

When two entire sentence structures are combined, the result is a compound sentence.

Example:

Mother cleaned the house.

Father went to work.

Mother cleaned the house, and father went to work.

Compound Sentence

Directions: Combine the following sentences to create a compound transformation. Label the compound transformation as compound subject, compound verb, compound direct object, or compound sentence.

Transformation

A. I work.

My husband works.

B. Candy is sold at the book store.

Gum is sold at the book store.

C. Birds are a sign of spring.

Bees are a sign of spring.

D. The children ran.

The children played.

E. The man worked hard.

The man rested long.

F. The baby walks.

The baby talks.

G. John studied hard.
Jack fooled around.

H. Mary washed the dishes.
Bob watched television.

I. The Saturn V took off.
Smoke filled the atmosphere.

T-For-To

Infinitives occur when the preposition to comes before the verb (ex. to win). Infinitives can function in the position of a noun. (ex. To win is exhilarating.)

In essence, the infinitive to win, really means for someone to win. This is why the transformation is called T-For-To.

Other T-For-To Transformations include the word for, and are easier to spot. (ex. The solution is for you to study.)

Here the infinitive phrase functions as a Predicate Nominative.

Directions: Combine the following sentences to form T-For-To Transformations. Then tell whether the infinitive is used as a subject or predicate nominative.

Used as

1. You only have one hope.
You must pray.

2. Charlie studies.
It is a miracle.

3. You fail a test.
It is discouraging.

4. Mother relaxes.
It is a rare occasion.

5. You do well.
It is wonderful.

T-Comparative - than

The comparative degree is formed when two people or things are compared. If the adjective consists of 1-2 syllables, the suffix er is added to the adjective (tall - taller), and the word than is used to complete the comparison.

Example: Jim is taller than his brother.

If the adjective consists of 2-3 syllables, the word more is used to make the comparison.

Example: Sally is more cantankerous than her sister.

T-Superlative (the . . . of)

The superlative degree of comparison occurs when three or more people or things are being compared. The superlative degree is formed by adding est to adjectives with 1-2 syllables, and the word most to words with more than two syllables.

Example: She is the tallest girl in the class.
Sally is the most cantankerous girl I know.

Directions: Combine the following sentences using comparative and Superlative transformations. Label your transformations.

Transformations

1. My dog is vicious.
Your dog is vicious.

2. Sue's dress is lovely.
Janet's dress is lovely.

3. My uncle owns a beautiful home.
Homes in Italy are beautiful.

4. My mother is a wonderful mother.
Mothers in the world are wonderful.

APPENDIX C

Sentence Combining Problems Developed By
Sixth Grade Students

APPENDIX C

SENTENCE COMBINING PROBLEMS DEVELOPED BY SIXTH GRADE STUDENTS

1. There was a dog.
There was a cat.
They lived in a house.
The house was blue.
The house was down the street.

2. There is a girl.
Her name is Jane.
She lives in a trailer.
The trailer has blue stripes. (with)
The trailer has white stripes. (and)

3. There is a bike.
The bike is blue.
The bike has flat tires. (with)
The bike is mine.

4. There is a cat.
The cat has brown fur. (with)
The cat is mine.

5. There is a dog.
The dog is brown.
The dog runs quickly.
The dog runs down the street.

6. A horse exists.
The horse is white.
The horse can run.
The horse can run swiftly.
It runs through the meadow.

7. I have a grandfather.
Grandfather owns a house. (possessive)
The house is beautiful.
Houses in the world are beautiful. (most)
-

8. There is a car.
The car is green.
The car is a volkswagen.
-

9. There is a boat.
The boat is green. (that)
The boat belongs to my grandfather.
-

10. There is a boy.
The boy has brown hair. (who)
The boy is my brother.
-

11. There is a puppy.
The puppy is big.
The puppy is black.
The puppy is mine.
-

12. There was a house.
The house was old.
The house was wrecked.
The house was being torn down.
-

13. There is a frog.
The frog is ugly.
The frog is green.
The frog is hopping.
The frog is in the swamp.
-

14. I have a book.
The book is color-coated. (possessive)
The book is a Rubik's Cube Solution.
The book is very good.
-
15. I live in the house.
The house is yellow. (with)
The house has white shutters.
-
16. Jane is tall.
Jenny is tall. (comparative . . . than)
-
17. There is a boy.
He has blond hair. (with)
He is riding a bike.
The bike belongs to me. (possessive)
-
18. There is a girl.
She has blond hair. (with)
She has blue eyes. (and)
She is my sister.
-
19. A cat is on the deck.
The cat is big.
The cat is black.
-
20. Clouds were in the sky.
The clouds were dark.
The sky was black.
-
21. Those houses were ruined in the fire.
The houses were huge.
The houses were old.
The fire was raging.
-

APPENDIX D

Diagnostic Test - Parts of Speech

Diagnostic Test

PARTS OF SPEECH

This diagnostic test is to taken before the remedial lessons are begun.

As you know, sentences are made by grouping words together. To be skillful in making sentences you must know the kinds of words and groups of words which go together to enable you to express what you wish to say. The different kinds of words and groups of words are called the parts of speech.

In this grade we shall study these parts of speech—nouns, pronouns, adjectives, verbs, adverbs, conjunctions, and prepositions.

This test will reveal to you whether or not you need to work on the ability to recognize these parts of speech. You will discover whether or not you know how to use nouns, pronouns, and adjectives in sentences.

You will notice that remedial lessons have been planned to help you overcome any weaknesses revealed in this test. You will work only those lessons with which you need help. It will not be necessary for you to study the work which you have already mastered.

Directions: Write the proper word in each blank space.

Follow other directions given in the test.

When you have completed the test, correct your work. Study the sample to learn how to indicate the errors made in this test.

	Error?	Drill	O. K.
<p>Sample: A <u>noun</u> is a word that describes people, places, and things. (a noun - an adverb - an adjective) ("A noun" is not the correct answer. The error was indicated by writing <i>yes</i> in the first column and by encircling the number of the page and remedial lesson listed in the second column. When the remedial lesson was finished, Janet Brown corrected it. The lesson was perfectly done so Janet signed her initials in the third column.</p>	Yes	<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> Page 8 Lesson 5 </div>	J. B.
<p>1. _____ is the name of a person, place, or thing. (an adverb - a noun - an adjective)</p>		Page 3 Lesson 1	
<p>2. The word, book, is _____. (an adverb - a noun - an adjective)</p>		Page 3 Lesson 1	
<p>3. Underline a noun. The men sailed away.</p>		Page 3 Lesson 1	
<p>4. _____ nouns are the general names of persons, places, or things. (common - pronoun - proper)</p>		Page 3 Lesson 1	
<p>5. _____ nouns are the names of particular persons, places, or things. (common - pronoun - proper)</p>		Page 3 Lesson 1	

6. Underline the common noun.
The Chinese were the first people to learn to print.

Page 3
Lesson 1

7. Underline the proper noun.
Gutenberg invented printing from movable metal type.

Page 3
Lesson 1

8. A _____ noun refers to one person, place, or thing.
(singular - possessive - plural)

Page 5
Lesson 2

9. A _____ noun refers to more than one person, place, or thing.
(singular - possessive - plural)

Page 5
Lesson 2

10. Underline the singular noun.
The Egyptians wrote on stone.

Page 5
Lesson 2

11. Underline the plural noun.
Gutenberg's invention lowered the cost of books.

Page 5
Lesson 2

12. Form the plural of these nouns:
wagon _____ dress _____
baby _____ tooth _____

Page 5
Lesson 2

13. _____ is a word used in place of a noun.
(a possessive noun - a pronoun - a singular noun.)

Page 6
Lesson 3

14. Underline a pronoun.
The Vikings sailed across the Atlantic Ocean in their long and narrow ships.

Page 6
Lesson 3

15. Improve this sentence by using pronouns.
After the boy had seen the bicycle, the boy talked about the bicycle every day.

Page 7
Lesson 4

16. Underline the pronouns.
In winter the bear makes his home in a cave where he sleeps through the winter.
The pronouns refer to the word _____

Page 7
Lesson 4

17. _____ are words that describe people, places, and things.
(nouns - pronouns - adverbs - adjectives)
-
18. Underline an adjective.
We saw a large ship pass through the canal.
-
19. He caught a fish.
Improve this sentence by using an adjective.
(suddenly - quickly - large)
-
-
20. In a sentence the _____ is the word which tells us what is happening.
(subject - verb - noun - adjective)
-
21. United States constructed the Panama Canal.
The word constructed is a _____
(noun - verb - adverb - adjective)
-
22. _____ is a word which may describe a verb, an adjective, or an adverb.
(an adverb - an adjective - a verb)
-
23. The boat moved swiftly down the river.
The word swiftly is _____
(an adverb - an adjective - a conjunction)
-
24. _____ is a word which is used to connect words, or groups of words.
(a preposition - a conjunction - an adverb)
-
25. The Vikings were the early people of Norway, Sweden, and Denmark.
The word and is _____
(a preposition - a conjunction - an adverb)
-
26. A _____ is a word which is used to introduce a phrase.
(conjunction - preposition - pronoun)
-
27. Early city streets were paved with cobblestones.
The word with is a _____
(conjunction - preposition - pronoun)

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Lesson 5

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Lesson 10

APPENDIX E

Test on Transformations

APPENDIX E

TEST ON TRANSFORMATIONS

Name: _____

Grammar Test

Relative Pronouns.

Directions: Write the relative pronoun that you see in each sentence on the line at the left. If there is no relative pronoun in the sentence, write the word none.

1. _____ The man who is washing the car is my father.
2. _____ Who broke my pencil?
3. _____ The picture that was hanging on the wall just fell.
4. _____ The dress which I made in Home Ec. class fell apart at the seams.
5. _____ What was that noise?
6. _____ The pen which you are using belongs to me.
7. _____ I read that book twice.
8. _____ I know the man who hangs wallpaper.
9. _____ The dog that bit Mrs. King belongs to Jason.
10. _____ The student who can recite 45 prepositions in alphabetical order is in Mrs. Murray's class.

Subordinate Clauses

Directions: Write the subordinate conjunction that you see in each sentence on the line at the left. Then underline the subordinate clause.

1. _____ Since it is raining, we cannot have a picnic.
2. _____ I will clean the house although I am sick.
3. _____ Because you have done well, you will be rewarded.
4. _____ You will do well on this test if you have studied.
5. _____ While we were fishing, a mermaid came along.