DOCUMENT RESUME

ED 026 368 24 TE 000 977

Research in Cognate Aspects of Written Composition.
Georgia Univ., Athens. English Curriculum Study Center.
Spons Agency-Office of Education (DHEW), Washington, D.C. Bureau of Research.
Bureau No-BR-5-0365
Pub Date 68
Contract-OEC-4-10-017
Note-94p.
Available from-English Curriculum Study Center, 312 Baldwin Hall, Univ. of Georgia, Athens, Georgia 30601 ($1.50).
EDRS Price MF-$0.50 HC-$4.80
Descriptors-Cognitive Ability, *Cognitive Measurement, *Composition (Literary), *Educational Research, Elementary Education, English Instruction, Figurative Language, *Language Ability, Language Research, Mathematical Logic, Mental Tests, Models, Oral Expression, Reading Improvement, Reading Research, Retarded Readers, Sentence Structure, Stimulus Behavior, Structural Linguistics, *Teaching Methods
Identifiers-*Project English, University of Georgia English Curriculum Study Cen

This volume contains 10 reports of research designed to study the mind of the child and the effects of sequence and process of learning on elementary school children and their writing. Specific purposes, procedures, conclusions, and needed further research are indicated for three studies on the process of written composition, four studies on language structure, and three on teaching methods. A discussion of research in progress is included. (LH)

RESEARCH IN COGNATE ASPECTS OF WRITTEN COMPOSITION

ENGLISH CURRICULUM STUDY CENTER

UNIVERSITY OF GEORGIA, ATHENS, GEORGIA

RESEARCH IN COGNATE ASPECTS OF WRITTEN COMPOSITION

ENGLISH CURRICULUM STUDY CENTER

UNIVERSITY OF GEORGIA, ATHENS, GEORGIA

This study was done in the English Curriculum Study Center of the University of Georgia. The Curriculum Study Center reported herein was supported through the Cooperative Research Program of the Office of Education U. S. Department of Health, Education, and Welfare.

The English Curriculum Study Center

The University of Georgia

Athens, Georgia

1968

COORDINATING STAFF

Rachel S. Sutton, Co-Director
Mary J. Tingle, Co-Director
Sue W. Cromartie
Emeliza Swain
L. Ramon Veal
J. W. Richard Lindemann (Co-Director) (1963-1964)
William J. Free (1964-1965)
Jane Appleby (1965-1968)
Warren G. Findley

CONSULTANTS

Dorothea McCarthy
Walter Loban
Arthur H. Livermore
Margaret Early
Ruth Strickland
Alvina Burrows
Hulda Grobman
Kellogg Hunt
Ralph Tyler
J. N. Hook

GRADUATE RESEARCH ASSISTANTS

Edieann F. Biesbrock (1967-1968)[1]
Alice Christmas (1963-1965)
Carmie T. Cochrane (1963-1964)
Marya DuBose (1965-1968)
Cornelia C. Eldridge (1964-1965)
June Ewing (1963-1966)
Joanne Fudge (1967)
Jessie Post Gough (1964-1965)
Emily B. Gregory (1963-1964)
Ethel Harris (1963-1964)
Emmaline Hendricksen (1963-1964
Rose Nell Horne (1964-1965)
Virginia Howard (1964-1966)
Nellie Maze (1965-1967)
Marilyn Mathews (1967-1968)
Frances Middleton (1967-1968)
Editha B. Mills (1966-1967)[1]
James Monday (1965-1966)
Rhoda Newman (1964-1965)
Pamela Roffman (1966-1967)
Nan Tomlinson (1965-1966)
Audrey Walker (1966-1968)
Lavinia Wood (1966-1967)

COOPERATING SCHOOLS

Alps Road School
Athens, Georgia

Centerville Elementary School
Seneca, South Carolina

Doerun Elementary School
Doerun, Georgia

Herman W. Hess Elementary School
Savannah, Georgia

Lake Park Elementary School
Albany, Georgia

Ocilla Elementary School
Ocilla, Georgia

Oglethorpe County Elementary School
Lexington, Georgia

The Savannah Country Day School
Savannah, Georgia

Spring Street Elementary School
Atlanta, Georgia

Trinity School
Columbus, Georgia

Franklin Elementary School
Franklin, North Carolina

---

[1]In cooperation with the Research and Development Center in Educational Stimulation at the University of Georgia.

RESEARCH IN COGNATE ASPECTS OF WRITTEN COMPOSITION

Table of Contents

Introduction

One of the functions of the English Curriculum Study Center has been to sponsor research conducted concurrently with other phases of the program. The framework of generalizations derived from such research is needed as a basis for curriculum development since little investigation has entered the area of written language in the elementary school. The purpose of research has been, traditionally, to ask pointed, specific questions about significant aspects of behavior or knowledge and then attempt to answer the questions so posed. Research studies in this program have asked questions about the mind of the child and the sequence and process of learning as it affects the elementary school children and their writing. Multiple approaches to an understanding of the process of composition in the classroom and its products were included in the investigations. The inherent nature and structure of language elicited another series of questions, while methods of working with children formed a very pertinent area for investigation and experimentation.

The nature of children's concepts and the sequence and manner by which they are formed is closely connected with the process of composition. In speaking of language learning Buswell has been quoted as saying that children progress toward maturity by different routes. An investigation of mathematical reasoning and its tendency to vary with proficiency in written composition indicates the possibility that both have a relationship with intelligence. As some of

the musical areas are susceptible to improvement by training, correlation between language and auditory responses might imply another approach to the teaching of children with language disabilities. Yet another avenue of studying the sequence of children's mental growth is approached through their understanding of abstraction, in this case time.

Linguists have agreed that speech is the foundation of language; two studies have examined oral language and its relationship to written composition. One investigator dealt with the question of cral language as children come to school in the first grade; the other study compares the oral and written language of third graders. At the fifth grade level children show an organization of concepts which enables them to use structures of modification, the subject of a third experiment in this area. From the fourth study on the nature of language it seems probable that sixth graders would respond to instruction in figurative language.

Since each child represents an individual interaction between his innate qualities and his total experience, it is expected that "different routes" in learning will occur in any classroom. Programmed learning, a recent method to provide for differences in cognitive organization, was employed by Harris with second grade children. The subjects selected were reading below grade level, the experiment being designed to compare the programmed method with a developmental reading program.

Ewing presented four conditions as stimuli for children's writing in third grade classrooms. The results would seem to indi-

cate that responses differ widely. Some produce opposite effects in separate groups of children. Mills tested the use of excerpts from children's literature as models for classroom writing. Imitation is a recognized process of learning, and here the experimenter has utilized the method for the improvement of children's written composition.

Further research is clearly indicated. It is to be expected that some results are inconclusive or that many investigations would profit by replication. The plan of research resembles the strategy of the Lilliputs--the purpose is not accomplished by one frontal, overwhelming assault, but by many small lines the worker seeks to lay hold on a gigantic problem.

I

MULTIPLE APPROACH

TO THE

PROCESS OF COMPOSITION

Citation: Wood, Lavinia R. A Study of the Relationship of Performance in Written Composition to Performance in Mathematical Reasoning in Elementary School Children. 1967

Purpose:

Wood has compared mathematics in its reasoning aspects to a language and designed her study to look for the factors common to this conceptual process and to written composition. Her purpose was to find a relationship between children's performance in both fields.

Procedure:

The population was located in a small Georgia town, and children from grades two. four, and six of one school were selected as the sample. There were 328 children, of whom 13 were Negroes, an element not investigated in the study. The distribution of socio-economic classes ranged from one to seven on the Minnesota Scale, the mode falling into class four, Skilled Workers and Minor Business.

The STEP Essay Test IV in four forms was used as a means to study the performance in written composition. The second grade was tested in composition by an experimental instrument of comparable form developed by Veal for this grade level.

Data concerning the achievement of the subjects were derived from the Metropolitan Achievement Battery of an appropriate level.

Mental factors were measured by the California Test of Mental Ability.

The research design called for the comparison by correlations and t-scores of mental factors with the scores of mathematical reasoning and fundamentals, Written Composition, and Language fundamentals. Sex and socio-economic status were compared with the mathematical and composition scores by the analysis of variance and covariance, holding intelligence as a constant.

Conclusions:

1. From the use of correlations it was found that for the total group mathematical reasoning varies with written composition at .57. The ratios for the grades individually show increase from grade to grade, all correlations, including the total group, being significant at the .01 degree. For each of the three grades, correlations showed that mathematical reasoning was a predictor of expected performance in written composition. In the fourth grade, written composition was also a predictor of mathematical reasoning.
2. Intelligence for the total group had a significant correlation with mathematical reasoning, and to a less degree correlated with written composition. Of the separate grades, the sixth grade showed greater correlation between these factors.
3. By the use of chi-square, intelligence showed a significant relationship with socio-economic status. The analysis of variance and covariance confirmed the significance of in-

telligence for the three grade levels. Socio-economic status, also, is related to mathematical reasoning and written composition.

4. It seems evident from correlation that performance in written composition is influenced by elements in language fundamentals. Mathematical reasoning is similarly related to mathematical computation.
5. Sex showed no significant relationship to performance in either mathematical reasoning or written composition.

Discussion:

Generalizations made from the results of this study seem to fall under the following headings:

1. Intelligence influences or accompanies performance in both mathematical reasoning and written composition.
2. For this sample, socio-economic status also affected the two areas of major concern.
3. Although some research studies have shown conflicting results, this study found that language fundamentals, which might be interpreted as a form of grammar, do in some way affect written composition.
4. Ability to perform well in mathematical reasoning would seem to predict better than chance performance in written composition.
5. From the comparison of sex with other variables, it seems that girls did not out-perform boys in this language area.

This is in contrast to the somewhat general belief that girls have more facility in most language areas. It was also true that the boys' performance was not significantly better than that of the girls.

Needed Research:

As the investigator of this study found no other research similar to this comparison of mathematical reasoning and written composition, other studies are needed approaching this relationship either from new viewpoints or by replication using other samples.

One writer reached the conclusion that methods of teaching grammar were the critical factor influencing performance in written composition. This would call for development of better ways of relating these two areas.

Better instruments should be devised for studying the complicated mental processes making up writing a composition or solving a mathematical problem.

Citation: Maze, Nellie M. A Study of the Correlations Between Musicality and Reading Achievement at First Grade Level in Athens, Georgia. 1967

Purpose:

Two aspects of the child's ability to respond to sound, language (reading in particular) and musicality, form the area of investigation in this study. Since the perception of different sounds occurs in individuals according to a pattern, between musicality and the sound elements of reading there would be expected a certain amount of "overlapping." Children who lack verbal achievement might be tested for potential success in school by examining their responses to auditory stimuli belonging to both systems--musicality and language.

Procedure:

1. In reviewing writings which might bear upon the area being studied Maze has considered four factors--acoustical, psychological, verbal, and musical. The interest in audile learning is comparatively recent, although earlier writers sensed some connection between reading and "a quick ear for music." Melodic language pattern ability of high school students was tested by Evers, who used tones with noise interference and limericks. This research considered the possibility that the auditory process included two separate branches, one centrally located in the brain and another located peripherally. It is possible these develop independently.

Of interest in language research are the findings of Henneman who reported that "aural messages proved more intelligible than did visual messages." Diehl in testing relationships among concept developments found positive correlations among these and certain musical abilities. In a study by Drake, children who had an arhythmic quality in reading or faulty handclapping rhythm often had difficulty in reading and spelling. Children with dyslexia had low musicality scores.

"Each individual," reports Maze in summarizing, "has his own working systems of perception, knowledge, and abilities. These learning systems are organized early in an individual's life, and account for the biggest percentage of differences in listening abilities. These in turn account for over fifty percent of reading difficulties." Hearing was found to be "an alerting response rather than a system of built-in reflexes, . . . (and was) the appropriate response to effective stimuli, the measure of effectiveness being decided by the psychological development of the individual child. Because of an individual's characteristics, discrimination of discrete units of speech sounds tends to vary among subjects tested."

2. This study is of the descriptive survey type using as subjects 124 first grade students from three schools in Clarke County, Georgia. An adaptation of the Seashore Measures of Musical Talents test was necessary in order to use it with children of the primary level. Cut-off points were set up where incorrect answers occurred repeatedly. Answer sheets were constructed which would be more appropriate for younger children, using arrows, hearts, and squares as well as numbers.

to indicate "same," "different," and "higher" or "lower." The presentation was changed from a verbal type to a game type situation. Timing was adjusted to allow for more time between items, and a rest break was introduced. Also, the number of proctors was increased. These modifications were tested in a pilot study.

Tests in four areas of musicality were administered--Pitch Discrimination, Rhythm Patterns, Tonal Memory, and Timbre Discrimination. The Metropolitan Achievement Tests were used as a measure of reading achievement in the latter part of the first grade. Information concerning socio-economic levels and sex were obtained from the schools.

3. Statistical comparisons were made by intercorrelations of the variable factors, significance being accepted at the .05 level. Scores were considered first individually within the room, then by rooms as composite scores. In school number one timbre related significantly in the reading achievement at the .01 level; in school number two, timbre, tonal memory, and composite musical scores related at the .05 level of significance; and in school number three, all music scores were significant when compared with reading achievement, pitch, timbre, and tonal memory relating at the .05 level, and rhythm and composite scores relating at the .01 level. When all schools were considered together, all music scores were correlated significantly with reading achievement at the .01 level, with the exception of pitch, which was found at the .05 level.

Comparison of music scores with the socio-economic level of schools (School One - low; School Two - high; School Three - middle)

showed the following significant relationships:

a. School one - timbre at .05

b. School two - timbre, memory, and composite scores at .05

c. School three - all scores significant at .05 except composite scores, which related at .01

When sex was considered, boys were superior to the girls in all comparisons both separate and composite musical scores and in reading achievement.

The investigator prepared histogram overlays, also, showing the results by segments of population, offering comparison by segments or with the composite musical profile.

Conclusions:

1. The null form of the hypothesis is strongly rejected since highly significant relationships were found in the comparison of fourteen items.
2. The secondary hypothesis concerning significant differences between different musical scores and reading achievement shows all scores falling within the .01 level except pitch, and this related at .05, narrowly missing the .01 level. The investigator concluded from these findings that all musicality areas showed almost equal co-relationship with reading achievement. The null hypothesis must, therefore, be accepted.
3. Consideration of school socio-economic level showed almost no correlation between musicality and reading achievement

at School One. Since this school was classified in the low socio-economic clas., it would seem to indicate that children with comparatively deprived backgrounds learn to read without the aid of musical ability. Another conclusion might be projected, that training in musical skills would be appropriate for children of low socio-economic class. School Two, the one classified as of higher socio-economic class, did not reflect any real advantage in musicality, although relationship at the .05 level was found in two musical scores and in the composite scores. School Three, which represented the middle class children to some degree, shows significant correlation between reading achievement and all but one of the musical scores, two of the correlations being at the .01 level. If these findings could be validated, it would indicate that middle class children are better able to transfer musical skills to language learning.

4. Although girls show high correlations between most musicality areas and reading, boys' scores were more highly significant at the .01 level in all comparisons.

5. Examination of the modified form of the test found a large number of scores at the low end of the distribution. This would seem to indicate that a number of items were comparatively easy for the subjects. Some children, especially at School One, practiced pattern marking which seemed to contribute to an excess of scores around the median, and in many

cases brought a greater degree of success than the expected method of selecting answers objectively.

Discussion:

The fact that the investigator found it impossible to assign socio-economic levels to the subjects with a reasonable degree of certainty makes all conclusions about the influence of that factor exceedingly tentative. If this variable could be substantiated, this type of study would have value for the present concern for children with disadvantaged or deprived backgrounds.

It would seem that some children are able to make use of auditory responses in developing an ability to read. Whether this is due to better sound discrimination is not clear, since the reading score does not differentiate between sub-areas of ability.

As a large percentage of reading difficulty is found among the boys, their high correlation shown here between musicality and reading achievement might suggest other approaches to remedial reading.

As the investigator points out, the four musical areas studied have been found susceptible to improvement by training. Where the correlations are high between reading achievement and musicality, remedial work might start in auditory training.

Needed Research:

Many areas appropriate for further investigation have been implied already. Further suggested research might include:

1. It would be interesting to explore the relationship between timbre and language sound discrimination.

2. Experimentation should be carried out to examine further the value of auditory learning. This might have implications for improving the form of directions used in the elementary grades.
3. Comparison with intelligence was not investigated in this study. This area might have implications for further information on the nature of learning. The study of auditory learning involving the reception, storage, and reproduction of stimuli in regular sequence would be important to knowledge of several language areas, and of musical ability.

Citation: Gough, Jessie P. An Inquiry into Children's Understanding of the Time Concept with Implications for Written Composition. 1965

Purpose:

Because of the close interaction between the stages of linguistic maturity and children's ability to manipulate abstract concepts, of which time is one, this study investigated the relationship between the two factors, written composition and understanding of time.

Procedure:

The study was planned as a survey of subjects in Walker County, Georgia, by testing the children in grades two, four, and six. The total enrollment in these grades was approximately 2,500, but 2,199 scored tests served as the basis of random selection. Twelve hundred subjects were selected by random procedures, four hundred subjects being taken from each of the three grades. Sampling was carried out by the statistical procedure known as systematic selection. Non-white subjects were pro-rated to equal the percentage of that section of the population in the county.

Distribution tables of the samples showed sex divided into 52 percent boys and approximately 48 percent girls; age levels overlapped to some extent from one grade to the next, so that all ages from seven years through thirteen years were represented. The majority of the children, however, were in the age groups seven, nine, and eleven.

Socio-economic groups, identified according to the Minnesota Scale

of Parental Occupations, followed closely the distribution in the county population, the large majority of the sample falling into Groups V, VI, and VII.

Scores on the California Test of Mental Maturity, 1963, placed 49 percent of the children in the bracket between I. Q. 90 and I. Q. 109. Nineteen percent ranged below I. Q. 90, and 32 percent were found at I. Q. 110 and above, the normal curve being somewhat skewed to the higher intelligence scores.

A test which was designed to measure children's understanding of the concept of time was constructed by the investigator, since no appropriate instrument was available. The multiple-choice form was chosen in order to eliminate the necessity of excessive verbalization on the part of the children. As a method of minimizing reading difficulties, the teachers who administered the instrument were instructed to read the test material to the second grade pupils. Testing was carried out under the normal classroom situation, and according to standardized directions.

From teachers' word lists and from time concept research studies, a time vocabulary test was constructed, also using the multiple-choice form. Another section of the testing instrument consisted of time lines. Some research writers discouraged the use of time lines in the elementary grades because their findings appeared to indicate an incomplete concept of time among children of this age. This device does offer another approach to the investigation and, for this reason, five simple forms of this item were included in the testing. The original form of the instrument was used to test children not in the sample of

the study, and the tests were revised in accordance with findings from this use.

Each child was asked to write two paragraphs, one projecting forward into the future, the second giving a description of time past. The element for which the paragraphs were scored was the level of time concepts. A five point scale was devised for rating the paragraphs, the range extending from zero, or nothing, to superior. For efficiency in using the scale, descriptive phrases accompanied the rating points.

Conclusions:

Comparison of the independent variables with the scores obtained in the experiment was carried out by the analysis of variance and covariance. Findings of significant differences appeared between the following variables:

1. Grade level showed significant differences in relationship with all Written Composition scores and with the Time Understanding Test and Time Lines.
2. On all Time Test scores including the Total Time score, boys scored higher than girls. Girls, however, exceeded the boys' performance on all Written Composition scores.
3. Although fathers' occupation related with no significance to the Time Tests, significant difference was found at the .01 level between this variable and Written Composition.
4. Race showed significant relationship at .05 level with Time Understanding, Time Vocabulary, and Total Time Scores.
5. Age revealed no significant difference with respect to Written Composition, but related consistently with all Time Test scores.

6. No significant differences were found between Non-Language and Total I. Q. scores and any Time Test score.
7. Language score on the Mental Maturity Test revealed significant relationships with all Time Test scores except Time Lines.
8. Reading Achievement Grade Placement showed consistently significant differences with all Time Tests, excepting only Written Composition I.
9. Arithmetic Achievement level revealed significant differences with Time Vocabulary and Time Line scores.
10. No significant relationship was found between any Time Score and the Total Achievement Battery.

Discussion:

In considering the results of statistical procedure, some patterns of relationship seem apparent. As measured by the testing instrument of this study, chronological age did influence children's understanding of abstraction, although Written Composition fails to show significance. Grade level, which would tend to be influenced by age, related with certain of the time and written composition scores. Language intelligence score showed a high level of significance with the Time scores; Reading Achievement scores related with the Time scores and Written Composition II and Total Composition as well. From these results it would seem that language ability varies with successful handling of abstract concepts.

Children from the more affluent backgrounds demonstrated a significant degree of relationship concerning Written Composition scores. This result has been found in other research and may be due to a certain facility in expressing their thoughts verbally. Race as a factor related at .05 level of significance to the Time Tests.

Boys seemed more successful in understanding abstract concepts, while girls were more fluent in writing.

Needed Research:

New forms of the Time Tests might well be formulated, an adaptation for the kindergarten level is one example. Because of the recognized need for improved information about the process of learning, research is needed to inquire into the sequence of children's ability to perform on tasks similar to these investigated here.

II

STRUCTURE OF LANGUAGE

Citation: Newman, Rhoda S. An Analysis of the Oral Language of Selected First Grade Children. 1965

Purpose:

Through the analysis of oral speech, Newman investigated the patterns of structure appearing in the language of 100 selected first grade children. The ability of children to order and extend their ideas was studied by a three-factor scale developed for this study.

Procedure:

From four schools in the City of Atlanta, one hundred first grade children were selected by the school personnel. Pupils who were repeating the first grade or who had missed the fall testing program were not included. Of the total sample, 50 were white and 50 Negro; slightly more than half were boys. The mean chronological age was six years, seven months. The socio-economic environment represented in the schools ranged from affluent to severely deprived, 3 percent scoring one on the Hollingshead scale, 41 percent classified as five.

Individual interviews were conducted with the children, the investigator unobtrusively recording the child's oral response to stimulus pictures. A vocabulary test which utilized a game approach was given at the start of the session. The recorded interview was transcribed and a two-minute segment analyzed for syntactic forms, the method defined by Loban being used for classification.

Non-standard language usage was studied, using 10 percent of the total sample. One half of the sub-sample was white, the other Negro,

all subjects in the group being taken from social classification five.

Conclusions:

1. The fluency of the children interviewed ranged from 12 to 287 words during the two-minute time segment, the mean length being 144 words. Boys spoke more than girls did, and white children more than Negroes. The number of short utterances and of communication units (independent clauses with modifiers) averaged approximately the same for all groups, except that white subjects used a slightly larger number of communication units than Negro subjects. Children of the highest social class averaged 189 words in the two minutes and those from the lowest 106.
2. Between the extremes of social class, the mean number of communication units showed 21 for the highest and 14 for the lowest.
3. The scores of the subjects on the Metropolitan Readiness Test showed differences in use of communication units both in means and ranges favoring those in the Superior level when compared with the Poor Risk level.
4. Of the approximately 14,500 words uttered, nearly 12,000 were in structural elements, and approximately 2,500 words were found in non-structural elements such as short utterances and mazes.

5. Of the non-structural elements, 904 words occurred in short utterances and 1,675 in mazes (confused or tangled language) Of the latter, repeats were the type most frequently used, with noises being the next in number. Mazes were used more often by boys, the figures being 985 words to 690 for the girls. White children used mazes slightly oftener than Negroes (854 to 821), but 14 percent of the Negro children used no mazes at all. All white children used one or more. Subjects of favored social position averaged ten mazes. while subjects in the least favored used five.
6. Of nine syntactic patterns, three accounted for 93 percent of the total used by the children. These were Subject-Verb-Objective Complement; second, the Subject-Verb pattern; and third, Subject-Verb-Subjective Complement. No significant difference in the average frequency of use of the various patterns was found when sex or race were considered.
7. Movable elements of syntax, also, were analyzed, the same types being found generally used by all groups. The greatest difference appears between the average number of movable words for subjects in the highest and lowest social positions: 58 to 19. Elements of subordination showed an average of use by white subjects of 13, while Negro subjects averaged 10.

8. On the scale measuring the extension of ideas, comparison of the scores showed less difference between the races than between the sexes.
9. The sub-sample studied for non-standard language usage revealed that inappropriate use of syntax and deviations in pronunciations occurred most frequently. No further analysis was made of this item.
10. In summarizing the relationships between variables, the most significant correlations are shown between social position and all language variables, vocabulary responses being somewhat less significant in most correlations. Other significant factors were reading readiness and the education of fathers.

Discussion:

Every effort was made to validate the procedures used in this study by consulting experts. This was made more desirable by the fact that some of the instruments had not been previously used with children, and no pilot test preceded work with the subjects of this study.

In presentation of the findings, Newman has included supporting evidence and opinions from other writers in the field. This does have the disadvantage of obscuring the impact and accessibility of the results.

It has been frequently stated that children have already acquired a basic pattern of language by the time they begin first grade. Information concerning the language characteristics of first graders consequently will influence what the school needs to do.

Sex was found to be a determining factor in some areas, the mean of total fluency being one of those greater in boys. No important difference appeared between the Negro and white subjects' use of language. Not surprisingly, social position revealed the greatest power to determine the amount and patterning of children's language.

Needed Research:

1. The Three Factor Scale would need further validation with other types of population before its results would achieve most value.
2. Further research might show whether the greater fluency of boys would continue to operate under other situations.

Citation: Eldredge, Cornelia C. A Study of the Relationship Between the Oral and Written Composition of Third Grade Children. 1965

Purpose:

Since oral language comes earlier in the sequence of language development, linguists have hypothesized that speech patterns are basic to other forms of language. Using the method of analysis developed by Loban, this study compares the oral and written language of late primary, that is, third grade, children.

Procedure:

Three classes of third grade children, including a wide range of socio-economic backgrounds, provided 82 subjects for this study. In the fall preceding testing of the experimental group, the investigator secured samples of written and oral language from third grade classes comparable to the experimental group. By this means it was possible to learn the best methods for presenting pictures and unfinished stories as stimuli for children's language. In the experimental situation, children were interviewed individually, and four samples of oral language tape recorded. The written samples were obtained in a group situation in response to stimuli similar to those used for oral language. Two teachers rated the written compositions, using an adapted form of the index of writing ability developed by Loban.

Achievement and intelligence records were supplied from school records and consisted of the California Achievement Battery and the

California Test of Mental Maturity. As the study was set up to investigate handwriting, this skill was rated from school report cards.

As the sample was drawn from a university dominated area, the curve of socio-economic status was skewed percentagewise to the higher ranks of this measure. Class four, Farming, contained no subject. This situation has been found in other studies recently made.

Four oral and four written language responses were obtained from each subject, a total of 656 samples. Each of these was analyzed by Loban's method, which began with the segmentation of language into phonological units, roughly equivalent to sentences. These in turn were divided into communication units, equaling the independent clause and its modifiers. This analysis relies chiefly on structural organization, although meaning is considered. Another unit, outside the grammatical structure, is the maze, defined as a "language tangle." A more intensive study of certain elements is carried out on the second level of analysis. The investigator devised symbols in order to tabulate the language elements. Another check on the investigation employed the classroom teacher's rating of the child's oral and written language according to a four point scale.

The children's vocabulary was investigated to determine the percentage of words not included in Thorndike and Lorge's Teacher's Word Book. Diversity of word usage was computed by "type-token ratio."

Reliability of all tabulation and scoring was carefully evaluated, the work of two analysts being fully checked.

Conclusions:

1. Children's language measured for average number of communication units ranges from 29 to 126 for oral language, while in written language the range is from 5 to 128. The differences of the means (53.7 oral, and 45.4 written) is not significant.
2. The number of words in communication units, the number of mazes, and the number of words in mazes did show differences significantly. The means of total words in communication units per child showed an average of 452.2 words in oral language as compared to 322.7 words used on an average in written language, a difference of 129.5. The mean number of mazes was 26.5 in oral language, while in written language children used an average of less than one (0.6). The total number of words in mazes as expressed by means differed significantly also, 52.2 being used in oral language and only an average of 3.5 words in written language. The greater tendency to become confused seems to occur naturally in oral language, where the children have no opportunity to collect and edit their thoughts, whereas these processes can be employed before writing.
3. In only three instances were language patterns of speech significantly different from those used in written language. The subject verb pattern was used more frequently in written language, while the anticipatory subject pattern ("There was a dog.") was found more frequently in oral expression. Par-

tials, which include any incomplete unit not falling into one of the nine basic patterns, were used more often in oral language.

4. The third grade subjects of the study used movable words, phrases, and clauses with equal proficiency in both oral and written language, although in writing, phrases were favored over clauses, the reverse being true of oral language. In using elements of subordination, the children handled more complex types of clauses in performing orally.
5. In written language the predominant types of unconventional usage involved verbs and nouns; in oral language, pronouns and modifiers occurred with greater frequency.
6. Nouns and pronouns appeared as subjects and complements with much greater frequency than other nominals, pronouns being most often used orally and nouns in written language.
7. In considering the various relationships of personal variables with children's language, it would appear the following conclusions were shown in this study:
   a. In a larger number of aspects, sex differences showed girls more proficient.
   b. The variation of performance in both types of language showed that I.Q. exerted the most influence on proficiency; age, sex, and socio-economic status produced significent differences in that order.

8. Achievement scores in reading and language were closely related to the amount of language, language patterns, movables, clauses, and other elements. The relationship between language achievement and written language showed the greater significance.
9. Teachers rated girls more highly than boys in oral language, but the differences between the sexes in written language were not significant.
10. The findings on vocabulary were inconclusive, although the results would indicate that, for the sample, 11 percent of the 200 words analyzed in oral language were not in the first one thousand of Thorndike-Lorge. The measure of diversity showed one half of the sample (approximately one hundred) were used only once, the other half consisting of words used repeatedly.
11. The investigator found that achievement in penmanship was related to proficiency in written language, although it showed fewest significant correlations with other language elements.

Discussion:

Children in the third grade have become thoroughly acclimated to school and, according to normal developmental sequence, have learned to compose in written language. It is appropriate, therefore, to sample this stage for the persistence of oral language patterns.

The findings of this study point to the conclusion that greater proficiency in oral language still persists after more than two years

in school. This is not surprising, since penmanship exerts a limiting influence on written language. It would seem, also, that children are still thinking orally, since more complex structural forms are found in oral language.

The results of this investigation would seem to confirm other writers who found age, socio-economic status, sex, and intelligence exerting an important influence on fluency and successful use of language.

Needed Research:

Suggested topics for further study include mazes, sentence connectors, and the use of verbs on the primary level. The consideration of mazes might lead to important basic research into thought processes. The investigator points out the possibility that lack of vocabulary may be involved, or that a struggle to use more complex structures in their speech produces the language tangle.

Further consideration of elements of this investigation might use samples with other distributions of socio-economic classes, since in this study, class one contained an unusually high percentage of the subjects.

The influence of penmanship on written language may be important in determining how much children write. The number of communication units was not significantly different, but the number of words contained in these units was considerably greater in oral language.

Citation: Gregory, Emily B. A Study of Children's Understanding of Certain Modifying Elements as Determined by Experimental Tests, and the Relation of Such Understanding to Selected Variables. 1964

Purpose:

The problem of language instruction in the elementary grades is threefold: The nature of concepts, the sequence of learning, and the question of method. Gregory's study examines children's understanding of modification specifically of the structural elements which are used as modifiers, the grade levels at which these concepts develop, and the relationship between this sequence of understanding and other factors which commonly influence educational success.

Procedure:

1. In the development of language skills, children use a variety of syntactic structures which they are unable to verbalize, or explain, although they are aware of the means of expressing their ideas. This is the stage which Gregory designates as the pre-verbalization level of understanding, and it is on this level that the experimental work of this study is carried out.

2. As tests of language structure on this level were not available, the experimenter devised instruments that would measure children's understanding of modification without the intermediate step of defining. Certain assumptions formed the basis for these tests. As stated by Gregory, they were: "(1) That there are identifiable levels of

understanding, and (2) that these tests will reveal children's awareness of sentence structure at some level of maturity."

3. One of the first steps in the research design was to construct experimental tests which would be sensitive to a child's awareness of sentence structure although he was not able to explain or define this understanding.

a. A trial form of the test contained ten groups of four sentences which the children were instructed to scan, first for meaning, and then, if no similarity in meaning were observable, to look for similarity in structure. This form of the test was tried experimentally on small groups of children.

b. As a result of the trial, the test was revised to its final form. In the plan for the study, Test I consisted of fifteen groups of four sentences each, the first sentence being used as a model. The pupil was instructed to consider the other three sentences and mark the one which most closely resembled the model. This section of the test was administered to a sample from a school not included in the main study. From these findings, the experimental test was again improved, both in the wording of the sentences and of the directions. The choices were rearranged so that a sentence resembling the model in meaning did not immediately follow the model. To remove the problem of reading difficulties and to make sure the subjects understood what was wanted on the test, the

directions and sentences were read aloud to the children. Also, a sample item was written on the board and used to demonstrate the correct procedure. This form of Test I was used for pre-testing and again after the sequence of work-sessions.

c. Tests II and III were designed to deal with the child's use of modification structures also on the pre-verbalization level. Words, phrases, or clauses ("the word or group of words" was used in the directions) which modified an underlined word were to be circled. In each case, the children were warned that some sentences would have no words needing this treatment. Above each group of four sentences was a key word such as "How?" or "Where?" The use of this device emphasized the semantic importance of the modification structures. Test III was developed on a similar plan except that adjectival modifiers were the structures examined. This was indicated in the directions by asking for words which described or told which boy or dog was the focus of modification. Cue words were unnecessary. Care was exerted to exclude the influence of instruction in grammar by avoiding emphasis on grammatical terms and stressing the importance of meaning.

Subjects from grades three through six in schools of DeKalb County, Georgia, were tested by long forms of Test II and Test III and the results studied to identify

the distribution of errors. The two tests were then divided by the split half technique to provide two forms, one to be used in pre-testing and the other as a post-test.

d. The three tests were then administered to Grades Three through Six in Gaines Elementary School, which was to be the location of the experiment.

Scores in the pre-test were used to select Grade Five as the level most suitable for the research. From this grade level, eight high achievers and eight low achievers were selected as subjects for the work-sessions.

4. Two samples of writing were obtained from all of the fifth grade subjects near the beginning of the experimental period. It was desired to control all other influences on the Written Samples than the children's ability to recognize and show by their use of modifying elements that they understood the relationships of these structures. After the work-sessions, two more writing samples were collected under circumstances similar to the first.

5. Twenty work-sessions were conducted by the experimenter, using both groups separately. The instructional process made use of a sequence of writing and of exercises in generating sentences, and these were followed by individual and group revision.

6. Distribution tables of age, intelligence, mental age, language scores, socio-economic level, and sex were based on data from school records. In chronological age, the mean age was 132 months; the mean intelligence quotient was 112, but partitioned by sex the boys' mean

was 115, the girls' 110; mean mental age was 140; and the mean language score (derived from the California Test of Mental Maturity) was 38. The socio-economic status was rated by a modification of Center's Occupational Scale. Category 1 contained 12 percent of the total school group; Category 2, 5 percent; 3 percent fell in Category 3; and 5 percent in Category 4. The normal curve of socio-economic status was markedly skewed to the highest level due to the presence in the area of university-connected families.

7. Careful test item analysis was carried out by Gregory in order to evaluate the discrimination of the test between the types of errors.

Conclusions:

1. Scores on the pre-treatment administration of Test I indicated that fifth grade children on all levels showed understanding of sentence structure.
2. From scores on Tests II and III, it would appear that children find adverbial modifiers easier to recognize than the adjectival structures.
3. The sequence of learning revealed in the scores that children's understanding of modification increases significantly from grade to grade. From grade three to grade four the increase was significant at the .01 level; from grade four to grade five, it was significant at the .05 level. The advance from grade five to grade six was considerably smaller and not statistically significant.

4. In answering Test I, children in Group I (the low-achievers) depended almost entirely on the criterion of meaning. Children among the high achievers were more aware of structural similarities. Subjects in Group I were able to generate modification structures, but tended to repeat one pattern. On the other hand, children in Group II were able to vary structural patterns and to perceive the relationships between the ideas represented.
5. Differences appearing between the groups during work-sessions pointed up several areas. Group II children were more flexible, more able to seek defining terminology; Group I subjects lacked ability to handle symbolic materials and depended on aural sensitivity to find the right word. Group I children found it difficult to revise for a better expression of ideas but rather concentrated on the mechanics of writing. Children of Group II made and accepted revisions more easily and were able to relate ideas.
6. In ability to generate modifiers for basic sentence patterns, both groups were quite similar, but Group II initiated more transformations and showed more facility in use of adjectival clauses, and participial and infinitive phrases. Supporting the plan of the work-sessions, the approach by "emphasis-on-ideas-to-be-expressed," were the significant gains in understanding of modification by both groups.

7. Generating modifiers for sentences appeared easier for both groups than recognizing the same structures in other material.
8. In relation to selected variables, understanding of sentence structure and that structural elements serve as modifiers varies with I. Q. beyond the .01 level of significance. Achievement on the tests relates to grade beyond the .01 level. Adjectival modification, also, relates to grade above the adverbial structure, and to chronological age.

Discussion:

Although the sample in the work-sessions is very small, the emphasis on meaning and the careful analysis of responses point toward important conclusions. Tests were administered to a larger sample (188) and part of the analysis included the results. Probably the most important function of the study, however, is the interpretation of children's responses to the manipulation of language.

Needed Research:

It is difficult to base decisions for planning school methods and curriculum on a small study. Much fruitful research can be done dealing with the approach to language through meaning.

Citations: Horne, Rose N. A Study of the Use of Figurative Language by Sixth Grade Children. 1966

Purpose:

Language can have a quality which goes beyond the statement of fact and involves the senses and the emotions. Figurative language which speaks to the mind by the comparison of two unlike images is one of the most successful forms used by writers to influence their readers. This element of written composition is not often taught in the elementary grades, for some researchers find children on this level too immature for the generalizing process; others feel that imagery appears naturally in young children before the limiting process of education begins. The purpose of this study was to examine children's response to figures of speech at the sixth grade level.

Procedure:

In this research Horne examined the differences in learning figurative language found in two groups of sixth graders in Rome, Georgia. Three experimental classes which included seventy-three subjects were instructed by the investigator. Over the period of six months, twenty-four sessions were conducted in each of the classes. The control group and experimental groups were approximately equal except in age and socio-economic level, the control group being of lower socio-economic level and somewhat older. By random selection the ratio of Negro and white children was equated with the ratio of the city school population.

Since figurative language demands an ability to generalize, the chronological age of the children is an important factor in this study. The mean age of the experimental group was 11 years, 11 months; for the control group it was 12 years, 11 months, this group averaging one year older than the first.

The influence of socio-economic status on children's understanding and use of figurative language did not appear in earlier research studies. The two groups of subjects were divided into high, middle, and low levels according to Hollingshead's Two Factor Index of Social Position. Both groups had almost equal percentages in the high social level, the differences appearing in the middle level, where 49 percent of the experimental classes were found, while 58 percent of the control classes were assigned to the low socio-economic level.

Other factors included in the study were sex, intelligence, reading vocabulary, and reading comprehension. The division of sexes was approximately equal in both groups. The median I.Q. of the two groups was 110; the mean of the control group was 107, the experimental, 108. Reading Vocabulary and Reading Comprehension scores were derived from the California Achievement tests administered by the school personnel.

As no test measuring understanding of figurative language was available, the experimenter constructed an instrument appropriate to the purpose. Figurative expressions were compiled from reading texts on the fifth, sixth, and seventh grade levels. A sample of children in these grades were asked to interpret the items, and their answers were used as foils for constructing the test. Fifty items were pre-

pared, each consisting of a sentence in which the expression was used followed by three interpretations, the correct response being randomly assigned to a position. An additional twenty-five items were constructed and the form of the test administered to 184 pupils; of the appropriate grade levels. The results of this test enabled the experimenter to select fifty items for the final form of the test. The total test reliability computed by rational equivalence was .82.

To obtain initial samples of writing from the children, a silent film, "Hunter in the Forest," was shown as motivation for the written stories. One child in the control group used a simile, while five examples of figurative language were employed by the experimental classes.

The work sessions were planned to emphasize appreciation of the author's skill in the use of language. As Horne explains, "The lesson plans used in the study were predicated on the thesis that children's enjoyment of good stories skillfully told by an author can be used to motivate children's own creation of figurative language."

Conclusions:

1. Post-session scores on the Test of Understanding of Figures of Speech showed a mean of 32.5 for the experimental group and a mean of 30.6 for the control group. Results of the post-session sample of writing yielded 199 figures of speech used by the experimental classes and five for the control group.

2. When the results of the treatment were examined by the analysis of covariance, it was found that the final scores on the Test of Understanding of Figures of Speech were significantly related at the .01 level to I.Q. and pre-experimental test scores. The variable concerned with frequency of use of selected kinds of figures of speech in the post-experimental writing sample was found significant at the .01 level. The conclusion would follow that gains shown by statistical analysis in the understanding and use of figurative language were derived from the instruction.
3. Reading vocabulary and reading comprehension showed no significant effect from the treatment. Sex or socio-economic level it would seem play no part in the mastery of figurative language. Only I.Q. wields important influence on the learning of figures of speech. These conclusions would confirm other research findings that children do not understand figures of speech, but their initially poor performance and later improvement would indicate that experience is more important than maturation.

Needed Research:

As the experimenter suggests, other grade levels below the sixth should be investigated to find the optimum levels for instruction and to plan sequential learning of this important literary tool.

The mental processes involved in bridging from one image to another one, unlike, but comparable in some ways, would offer another

approach to the investigation of learning. Horne indicates, also, that re-examination of the influence of socio-economic level and sex would contribute to understanding of the uses and limitations of figurative language. The findings of this study would be important as well in the curriculum of reading instruction.

III

METHODS OF PRESENTATION

Citation: Harris, Ethel B. An Experiment in the Use of Programmed Linguistic Reading Material to Improve the Reading Ability of a Group of Second Grade Pupils Who Are Reading Below Grade Level. 1964

Purpose:

The purpose of this research experiment was to test new materials for teaching reading which combined the principles of linguistics with the organization and methods of programmed learning. Because of its emphasis on logical sequence and immediate feedback, programmed learning offers a new tool for use in remedial situations. The experiment was, therefore, designed for use with children having reading difficulties.

Procedure:

In late 1963, four parts of a series of programmed reading texts were published. The books were the work of Cynthia Buchanan and Sullivan Associates and were published by McGraw-Hill. The series was not only exemplary of the programmed method, but also made use of linguistically based content. The texts were planned for pre-reading and beginning reading levels.

The experiment design led to the selection of sixteen children in the second grade who had failed to make normal progress in reading. The school at which the experiment was conducted was located in a low socio-economic area. Although the sixteen children were classified on the second level or below, some were in their third or fourth year

of school. Chronological age of the subjects ranged from 86 to 110 months, the median falling at 94.5 months.

The measuring instruments used were: The California Test of Mental Maturity, the Gates Primary Reading Test, the California Reading Test, and Gray's Oral Reading Paragraphs Test. When the results of the Mental Maturity Test were tabulated, it was found that the median of the non-language mental age of the subjects fell at 87.5 months; the language mental age had a median of 86; and the median of the total test was 89 months. The total intelligence quotient ranged from 69 to 120, with a mean of 95. These scores indicated that the average intelligence of the subjects was low average, ranging from very inferior to superior. On the Gates Reading Test, the scores given in grade levels resulted in a range of scores from 1.9 to 2.7, the mean being 2.4. The actual grade placement of the children at the time the test was given was 2.3. As the subjects of this experiment were somewhat overage, their performance on the Reading Test would not change the need for remedial attention. Using the 1957 norms, the California Reading Test yielded scores with a range of 1.9 to 3.7 grade placement, the median falling at 2.8. The Gray's Oral Reading Test was administered by a reading specialist resulting in a range of 0.0 to 2.6 with a median of .7, the seventh month of the first grade.

The sixteen subjects were divided into two groups of eight each equated by the means of chronological age, mental age, intelligence quotient, and reading grade. The investigator designated one group with the programmed material would be used, and the second group was

to be instructed by the developmental approach. A control group of eight, equated by the same factors, was chosen from another room in the school. This group continued to be instructed by the classroom teacher using her usual methods.

Beginning in late January, the two experimental groups were instructed by the researcher an hour each day for sixty school days. A small room was arranged as the experimental classroom. After ascertaining that the children were able to perform the Prereading tasks in the programmed material, the experiment was begun at the primer level. Some orientation was necessary as the children began this type of organized learning. Later, when the children had progressed into Book 1, the first fifteen minutes of each class period was devoted to instruction in sound-symbol relationships. For the rest of the period, each child worked at his own pace. Although the children were assured they should not be unduly concerned about errors, several persisted in looking at the answers until it was necessary to staple the answer columns together. Seven of the eight pupils completed Books 1, 2, and 3 of the first series. One pupil went on into Book 4, and the remaining student reached Book 3, but did not complete it.

The developmental group used a basal reader approach, two pupils working at the Junior Primer level, five at the Primer level, and one in the First Reader. Five of the pupils progressed into the Second Reader, one the First Reader, and two were working in the Primer.

The teacher of the control group used a combination basal reader-phonetic approach. At the end of the experimental period, the three reading tests administered as pre-tests were repeated, using equivalent forms for the Gates Primary Reading Test and the California Reading Test.

Conclusions:

1. By analysis of the raw scores of the pre-test and post-test instruments, all three groups made a gain of seven months in Average Reading Grade on the Gates Primary Reading Test. Examination of scores for Total Reading Grade on the California Reading Test showed mean gains of the linguistic and developmental groups to be 1.0 and 1.1 respectively, while the control group scored a mean gain of seven months. Results of the Gray Oral Reading Paragraphs showed slight gains in the means of all groups, but a wide range when the scores were considered individually. The range of mean gains for individuals was from zero to one year, eight months.
2. Statistical comparison of initial test scores and final achievement was carried out by analysis of variance and covariance. All pre-test means were significantly related to final scores, with the one exception, Comprehension on the California Reading Test. On analyzing differences among groups, scores on Vocabulary and Total Reading varied significantly in favor of the linguistic and developmental classes. Girls gained significantly on Oral Reading and

Comprehension when means were compared as to sex. Age, also, was significantly related to Oral Reading, indicating that longer school experience was an advantage.

Discussion:

Although this investigator fails to discriminate between the programmed linguistic group and the developmental group, some possible tendencies may prove useful. As Harris states, "Children can and do learn to read in a variety of ways, and . . . what is beneficial instruction for one pupil may not be effective for another." Mean gains for individuals showed a wide range on all measures, possibly indicating that some of the methods may be more useful in some cases than others.

Needed Research:

1. Since the groups used in this study are small, similar investigations carried out with groups of different sizes might show more definitive results. Also, experimentation should include work on an individualized basis.
2. Use of these materials with other populations varying in socio-economic level and background might discover important methods of remediation.

Citation: Ewing, June B. A Study of the Influence of Various Stimuli on the Written Composition of Selected Third Grade Children. 1967

Purpose:

How can schools best educate their pupils to express themselves clearly and effectively in written language? To call forth such responses, stimuli must be presented that will appeal to the child's inherent need to put thoughts into words. In this study, Ewing was concerned with children's writing in response to four conditions of stimuli, which were designated as minimal, auditory, visual, and motor. The quality of the writing was judged by general rating and by frequency counts of developmental variables.

Procedure:

Four classes of third grade children at two schools in Athens, Georgia, furnished the subjects for this study. From a total of 148, sixty-four children were selected by random procedures. Another school in the same area was utilized for the pilot study. The research plan provided for obtaining four writing samples from each subject. Each child in the study produced two samples each week for two weeks, in response to the four types of stimuli. Minimal stimulus indicated the assignment of a story to be written, with no other comment by the investigator. Auditory stimulus consisted of portions of three musical selections which had been tape recorded. The children were told to select one and write about it. The visual stimulus consisted of a film

without words and shown without the background sound track. As a motor stimulus, each was given drawing materials and asked to write about the picture he drew.

Experience in the pilot study guided the writing of standardized instructions and provided information about timing and classroom procedures. A schedule was arranged so that the order of presenting the stimuli occurred in a different pattern for each class. The writing period lasted from twenty to thirty minutes during the morning session of school. Instructions were given the children that spelling and handwriting would not be important, and emphasis was placed on free expression of the children's own ideas.

Information concerning the subjects was collected from school records. The data on intelligence were derived from intelligence quotient scores measured by the 1963 California Test of Mental Maturity, Level 1. Slightly more than half of the children had an I. Q. of 110 or below, and in this group the girls outnumbered the boys. A similar distribution of sex was found in the upper group. Socio-economic status was assigned according to Hollingshead's Two Factor Index of Social Position. The subjects were distributed through all levels of the Index, but most of the children were found in the first and third categories.

Two methods were used for rating the samples of written composition. General Impression ratings were made by five graduate students who were trained to use a set of criteria developed by the investigator. The writing samples were judged for ideas presented; writing mechanics were not considered as pertinent to the study. The raters worked by using all four samples of one subject, representing the four stimuli, and

ranked the compositions as best to worst, one to four. All raters judged all the papers, working independently. Rater reliability was checked statistically, using the Kendall coefficient of concordance W. According to this measure, rater agreement was significant at the .01 level for 20 percent of the groups of composition, and an additional 17 percent agreement at the .05 level.

To analyze the compositions on a rank system, nonparametric techniques were used to test the hypothesis. This procedure does not assume the scores were part of a normally distributed population. The Friedman Two-Way Analysis of Variance by Ranks was the measure used.

A second method of analysis was used to obtain information about the developmental maturity of the children. In this procedure, the T-unit length, fluency, vocabulary of use, and variety of structural patterns were the factors investigated. The T-unit is a measure developed by Hunt, who defines it as a "minimal terminable unit," the shortest grammatically allowable sentence. Research by Hunt would appear to indicate that T-unit length measures with more reliability than many other instruments the language maturity of younger children.

Analysis of the writing samples was carried out by calculating the ratio of long T-units (nine or more words) to the total number of T-units found in the compositions. A fluency score was obtained from the total number of words in each story, and a vocabulary of use figure was derived from the total number of different words in the sample. Structural patterns used by the children were classified according to Loban's system of nine basic patterns. Any group of words not classified according to that system was designated as a partial. All data obtained from

the frequency counts were processed by the least squares analysis of variance. Significant F values were tested by Duncan's New Multiple-Range Test for significance of differences among the various subgroups.

Conclusions:

1. From the general impression ratings, comparison of the stimuli showed that samples written in response to the minimal condition ranked highest, followed by the auditory, visual, and motor conditions, in that order.
2. Analysis of variance and the Duncan Multiple-Range Test used for comparison of sex, intelligence, and socio-economic level with the quality of writing after different stimuli showed that:
   a. Socio-economic level influenced significantly the quality of children's writing after the use of different stimuli.
   b. The quality of boys' writing was better after minimal and auditory stimuli, while girls responded more successfully to visual and motor stimuli.
   c. After minimal stimulus, the lower I. Q. group wrote significantly better compositions; this stimulus had the opposite effect on the group with I. Q. 111 and above. Motor stimulus proved most successful for the higher group, but least successful for the lower.
   d. Minimal stimulus was most effective in producing quality writing from the two highest socio-economic levels; the auditory stimulus ranked highest for levels three and four, and socio-economic level five responded best to the film.

3. Girls had a more fluent use of language both as to length of composition and variety of vocabulary. Measured by ratio of long T-units, the girls excelled to a significant degree. Children of the upper intelligence group were significantly more fluent and used more long T-units than children in the lower group. In all language measures, the top three levels of socio-economic status excelled when compared with children of levels four and five.
4. T-unit length correlated highly with the over-all quality of children's compositions.

Discussion:

The statistical findings vary widely between the factors being compared. Girls and boys respond in opposite ways to the writing stimuli and when examining the two groups divided according to intelligence scores, the investigator found that the condition which succeeded with one group failed with the other.

That the minimal stimulus appealed most successfully to children from affluent homes might indicate that these children have mental and experiential resources on which they draw for content and motivation when they write in school. Children with few advantages may need a mental alerting mechanism of a concrete nature before they summon their mental images and make the transfer to paper.

Needed Research:

Much more research is needed to test the use of these stimuli with other children under other conditions. Age and grade level may have an

importance which were outside the design of this study.

Investigations using other models of stimuli may indicate the correlations between experience and writing performance.

Citation: Mills, Editha B. An Experimental Study in the Use of Literary Models in Written Composition. 1967

Purpose:

The value of literature as a model for writing lies in the interrelatedness of the various forms of language. Mills cites the fact, also, that much of children's learning in their early years is acquired through imitation. If this tends to be true, children will respond to the quality of literature with better writing. Written composition has too long been a tedious chore to many middle graders, and the product of this unhappy process has often been the worst aspect of the situation.

Procedure:

During a summer session the investigator worked with 26 fifth graders, using literature as a stimulus to written composition. The series of twelve lessons developed for use with this group served as a pilot program for designing the main study.

Subjects for the study reported here were 122 fifth graders attending two schools in Clarke County, Georgia. The research design called for two groups, one to receive experimental treatment and the other to serve as a control. The experimental group was so selected that it contained forty-five children, twenty-five boys and twenty girls; the control group numbered seventy-seven. The control group continued with the regular schedule under their classroom teachers, while the investigator worked two hours each week with the children

in the experimental group. The weekly periods were divided into two periods of one hour each, the first being used to present a model taken from children's literature; the second period consisted of a work session the next day in which much of the time was devoted to writing. The excerpts from children's literature were carefully chosen from a list made out by librarians in the Athens Public Library.

All subjects, including the control group, were given an opportunity to report free reading and to drop in "Treasure Chests" any free unassigned writing.

The length of the study covered twenty-four weeks, during which the investigator presented each week one lesson based on a literary model and followed with a period in which the children were encouraged to write. Lesson plans for the series are included in the appendices.

Data concerning the subjects were supplied by the school records: age, sex, parents' occupation and education, and scores from standardized tests. Achievement scores were obtained from the results of the California Achievement Battery, while I.Q. was derived from scores on the California Mental Maturity Test. One variable chosen for investigation in this study was concerned with the subject's length of stay in the school which he was attending at that time. This factor has received little attention and for that reason has not appeared in literature on the subject.

The children's ability in written composition was tested by the STEP Test of Writing, Forms A and B. The administration of the test to both groups provided pre-test and post-test scores.

Samples of the children's performance in written composition were obtained at the beginning of the experimental treatment and each eight weeks thereafter. As stimuli for the children's writing, four sets of pictures were assembled by the investigator and rated by nine teachers for their value and appeal to children. The written paragraphs were rated by three trained raters on a seven-point scale based on Veal's study. Since it was desired to place the emphasis on content, that quality received fifty percent, style received thirty percent, and mechanics, twenty percent.

Conclusions:

There were slight differences between the two groups:

1. In a comparison of mean ages, the control group was one month younger.
2. The experimental group contained more than half boys; in the control group there was a slight majority for the girls.
3. By socio-economic class, the control group had more subjects in the high level; the experimental in the middle level; and although both schools had few in the low classification, the experimental group had a higher percentage.
4. More than 50 percent of the subjects in both groups had started the first grade in their present school. The other children were rather evenly distributed through the remaining intervals.
5. The distribution table of subjects' I.Q. is sharply skewed to the higher end. Generalizations from this sample would,

therefore, not be applicable to a normal population.

6. Although there were mean score differences between pre-test and post-test STEP scores which were considered by groups, when the total number of subjects were examined by the analysis of covariance, there was no significant difference. The writing samples gathered before and after the experiment showed highly significant differences (.001).

Discussion:

On statistical analysis, conflicting, or at least confusing, results were obtained on the scores of the STEP tests. It is difficult to understand, in this instance, the advantage of including both groups in the analysis of covariance. Mills points out that the purpose of STEP tests is directed toward editing the ideas of others, whereas the subjects of the experiment received training in expanding their own. What the results say on the writing samples seems clear: That children can improve their writing. The purpose of the experiment was "to promote development of content to replace the matter-of-fact presentation of an immature writer . . . the children referred to this as including sufficient happenings or details to express an idea or feeling." There would seem to be indications from this study that where other factors, i.e., socio-economic status, achievement, and intelligence, are favorable, literary models will help to improve children's writing.

Needed Research:

The rating of written composition continues unresolved. Emphasis

on liberal use of the red pencil is no longer accepted as the only way. Mechanics are more often being relegated to the proof-reader's responsibility, an after stage. Much work and inspired thought could be used in this area.

With the increased importance of working wi th children as individuals, planning for all levels is necessary. Further use of literary stimuli with samples of various levels of socio-economic populations would extend the value of this study.

IV

RESEARCH IN PROGRESS

Research in Progress

Five studies now in progress extend the scope of research carried on under the program of the English Curriculum Study Center. Direct application of the curricular materials was implemented by experimentation in some of the participating schools. These new materials substitute a sequential program for the haphazard attention that written composition has so often received in the elementary schools.

Using models chosen from children's literature, Walker examines the effect on the writing of pupils in cooperating classes. Measures employed to establish the reading interests of the subjects include an interest inventory, a list of books read, and reading achievement scores. Trained raters will estimate the factors of syntax, structure of paragraphs, and vocabulary found in samples written at spaced intervals by the children in the study. The performance of the subjects will be considered, also, according to their placement as slow, average, or fast learners.

Creativity is manifest in its expression; the internal quality of this facet of human entity can be surmised only by its outward realization. In a study which deals with sixth graders using English Curriculum Study Center materials, Middleton has compared their scores on the Torrance Tests of Creative Thinking with those of sixth grade children in another school not working on the experimental program.

Another study which compares sixth grade children in a participating school with other pupils in the same system who have not used

these materials is the investigation by Mathews of listening abilities.

The listening phase of language is first in the sequence of psychological development and forms a basis for the succeeding stages. Completed research by other writers is uncertain as to the effect of training on efficiency in listening, but there are indications of a significant relationship between oral language and listening ability. Overall language ability and intelligence were found to have some positive correlation with the results of listening tests. This study explores another area, a phase on which little is known, the connectedness between writing performance and listening ability. Both forms of language achievement were measured by STEP tests, one the Essay Test, and the other the Listening Test. These measures were administered to all sixth grade children in one school participating in the English Curriculum Study Center program and also in another school of the same system designated as the control school. Only the children who had attended their respective schools for at least two years were included in the sample. The results of the tests and other variables will be compared by the statistical procedures of correlation and the *t* test.

These studies are indicative of the continuing exploration of the child's world for techniques to improve the way children write.

A study being conducted by DuBose involves the construction of an instrument for assessing fifth grade children's understanding of certain concepts above language, and use of this instrument to determine whether or not their performance on this test is related to the

quality of their written composition (as indicated by a global measure of quality and several description analyses).

The subjects on whom data are being gathered are fifth grade children in those schools cooperating with the English Curriculum Study Center. The 16 cooperating firth grades (approximately 400 children) from which a random sample will be selected include urban and rural groups, as well as high, low, and average ability groups.

The problem of Biesbrock's study is to develop a standardized instrument of the product-scale class which can be used to measure systematically the global composition ability of young children. Furthermore, this study involves using the developed instrument (1) to evaluate growth in composition ability, and (2) to compare global and syntactic measures of composition ability.

The developed instrument, with established levels of realiability and validity, can be used to evaluate and compare objectively the written composition of young children. Such a test can be used to rate the quality of a specific composition, to measure an individual child's progress from year to year, to measure the improvement of a class from the beginning to the end of a year, or to evaluate the effects of such variables as teaching methods or teaching materials upon composition performance. The instrument can also be used to identify typical essays at high, average, and low levels of performance.

The subjects who produce the writing specimens to be used in this study will include approximately 1,000 second and third grade students from eleven elementary schools in Georgia, South Carolina, and North

Carolina. Four topics will be randomly assigned to the thirty available classes, providing for approximately 250 students to write on each one of the four different topics. This group will include classes which have been selected by the English Curriculum Study Center to represent the diverse geography, urban and rural communities, and the varied socio-economic levels within the region, as well as both public and private schools.

Summary

To be effective research must be continuously reassessed; as in other fields, change is the only normal condition. Some of the possible extensions of research are replications of existing studies in the field of written language using different samples of age levels. Another problem in dealing with the products of children's writing is the discriminating ability, or lack of it, found in measuring instruments. One series of tests is in general use, but a choice might offer a more flexible solution to a variety of problems. The basic theories of evaluating composition might well be examined and rethought. Criteria for training the raters need to be evolved from experiences, and evaluation materials provided.

Research in this volume is concerned with examining children's modes of thinking during the process of writing. Attention is being focused here on the incubation period, the time children need for "fiddling around" with an idea. The mind is being compared to a computer with storage banks more in the form of grids than sheives, and education is being described as writing the index as well as storing information in the grids.

Instruction in written composition too often has been narrowly based, fragmented, and procedurally limited. Research in this volume

suggests that the child's use of other symbol systems than verbal, such as quantitative, sound, tonal, and rhythmic appears to result in understanding of composition and increased written production. It also suggests that critical analysis of printed stimuli provided in abundance by the instructional setting tends to promote quality in writing, and that it is possible to define excellence in a young child's writing and to construct instruments for measuring it.

Conclusions

Studies in cognate aspects of written composition for the elementary school child, examined in the context of accumulated research, acquire additional significance. Inferences and interpretations of these studies and of selected prior investigations follow.

I. Multiple Approach to the Process of Composition

Several studies (Lyman, 1932; Seely, 1933; Smith, 1933) have generally agreed that the scope of compositional activities should be broad enough to "meet the needs" of all the students. Provisions for practical and critical activities as well as imaginative and creative activities were advocated. Some of the uses of speech and writing which were mentioned frequently include expressing real and vicarious experiences, solving problems, focusing on the activity in school and community, and heightening powers of observation, judgment, and esthetic appreciation (Hatfield, 1935; Conrad, 1937; Robbins, 1936; Stephens, 1928).

Braddock, Lloyd-Jones, and Schoer (1963, p.1) directed an intensive investigation to determine "... what is known and what is not known about the teaching and learning of composition and the conditions under which it is taught ..." Braddock and his associates listed numerous studies pertaining to children's written composition, but considered only five of these as outstanding pieces of research. Braddock pointed out a number of reasons why some researchers shy away from tackling the many problems and the seemingly uncontrollable variables which must be dealt with in a research study involving the "larger elements" of written composition. These same problems, which bar some from attempting the research,

cause many of the research studies made to be considered secondary in importance.

Smith (1941) studied procedures used to encourage writing in forty elementary school systems. After analyzing the responses of teachers to questionnaires; observing classroom writing activities; interviewing teachers, pupils, and administrators; and analyzing samples of children's writing, she identified ten procedures as most useful in encouraging creative writing. These were (1) providing attractive classrooms rich in materials, (2) encouraging pupils to write from their own interests and needs, (3) providing rich experiences about which a child can express himself, (4) developing sensitivity to good writing which helps a child improve his own experience, (5) using real needs of children or helping them to develop new ones, (6) providing freedom from fear and helping pupils gain confidence in their ability to create, (7) providing abundant time and opportunity for writing in many areas and in many forms, (8) developing skill in mechanics without sacrificing spontaneity, (9) sharing the end products of writing, and (10) evaluating the writing in terms of the total growth of the child. Smith also found that in every classroom, where there was a higher level of productivity in writing and a great deal of creativity on the part of teachers and children, there was also creativity and invention going on in dramatics, in painting, and in every kind of art and class activity. She further stated that inventiveness in writing never flourished just in writing; rather, always in a complex with other media of expression.

Attempts to measure meaningfully and reliably the complex abilities involved in actively using the language to convey ideas, as in composition, have met with small success. Few methods for evaluating abilities in composition in terms of objectively scored items are apparent. Measures

based upon judges' evaluations of actual compositions are almost invariably characterized by poor reliability. A major source of difficulty in evaluating a sample of a pupil's writing is the dual nature of the process involved, objective assessment and value judgment of what the student has done.

The danger of evaluating written composition by exclusively mechanical standards, as by the use of scales which emphasize technical correctness to the neglect of such considerations as content, organization, and creative imagination, was pointed out by several researchers (Lyman, 1929; Seely, 1933; Smith, 1933; Vordenberg, 1952). Turner (1942) suggested a threefold technique for evaluating oral and written compositions. His plan included evaluation not only of the mechanics of expression, but also of the content with which the students deal, and the students' ability to present ideas in a logical sequence.

In evaluating children's compositions at the primary level, Strickland (1960) emphasized the importance of measuring the quality of the child's ideas, the evidence of the richness or meagerness of his background, and his potentialities for expression. In evaluating the outcome of language instruction in New York State, Smith (1941) used wealth of ideas, originality of ideas, and facility of expression in handling the mechanics of the language.

Wood (1967) found that for second, fourth, and sixth grades correlations showed that mathematical reasoning was a predictor of expected performance in written composition.

Studies have consistently noted the linguistic superiority of children from upper social levels with respect to vocabulary, sentence structure, and usage (Day, 1932; Davis, 1937; McCarthy, 1954; Lloyd and Warfel, 1956). Millard (1951) emphasized that maximum language develop-

ment was dependent upon an adequately stimulating environment.

Sutton (1961) analyzed certain factors related to educational achievement and found that the educational achievement of a child is a product not only of the maturational forces within him but also of the experiences provided by his environment. In the various aspects of language measured in her study, Young (1941) found that preschool children in the high socio-economic group were consistently superior to those in the low group.

McCarthy (1954) reported that children reared in institutional, orphanage, or hospital environments show deficiencies in speech sounds, vocabulary, and language organization. Milner (1951) studied first grade Negro children. When she examined the patterns of family life of those making high and low scores on language items of the California Test of Mental Maturity, she found that children with high scores tended to come from families where the patterns of interaction between parents and children encourage parent-child conversations and involved habitual overt expressions of affection.

Dawson (1957) studied the vocabulary size of third grade pupils in relation to home-environmental factors. She found the vocabulary size of pupils from the lower socio-economic homes to be comparatively low at third grade level. Within the low status socio-economic group she found a wide range of language skills and abilities, ranging from very limited to above average in skills. McClellan (1956) studied creative writing characteristics of children in grades three through six. With almost every factor studied, he found the higher the socio-economic level, the better the performance.

Templin (1957) found consistent differences in the linguistic skill of children from upper and lower socio-economic groups. When

Newman (1965) analyzed the oral language of first grade children, she found that those from the most favored socio-economic level excelled in linguistic proficiency over those from the lower level. This same advantage of the upper socio-economic group was noted in the Eldredge study (1965).

On the basis of research with British working class youth, Bernstein (1960) found that the structure of language was affected by different environments. While the middle class used forms of speech which allowed for variety in sentence structure, the lower working classes showed a rigidity of syntax which limited the structural possibilities for sentence organization. Loban's research (1963) in the United States has rendered nothing to controvert the findings of Bernstein. Rather, he stated the possibility that subjects from the least favored socio-economic categories could find themselves at a disadvantage in schools where the verbal linguistic skills of the middle class prevail. Loban reported that as a child places lower on the socio-economic scale, his proficiency in language decreases, the complexity of his grammatical structure decreases, and his writing ability decreases. Wood (1967) found, also, that socio-economic status is related to mathematical reasoning and written composition. Gough (1965) found a significant difference at the .01 level between this variable and written composition.

Young (1952) reported that preschool children with superior intelligence ratings surpassed children with average intelligence ratings in total amount of language used, and in sentence length. Wilson (1963) examined the writing of third grade children and found that the amount of written language correlated with intelligence--the higher the intelligence quotient, the more writing done.

Lorge and Kruglov (1950) designed an experiment to test the hypothesis that both the structural and conceptual aspects of written composition were indicative of the general intellectual level. They found that the structural elements of written expression were related significantly to measures of intelligence. They also found that structural aspects (average sentence length, relative number of difficult words, and relative number of prepositional phrases) and conceptual aspects of written expression were significantly related to one another. They concluded that the relationship between conceptual difficulty (complexity of ideas) and intelligence was significantly higher than the relationship between structural complexity and intelligence.

Downey (1963) and Eldredge (1965) found that intelligence correlated with ability in writing. Gregory (1964) investigated certain concepts of modification in third through sixth graders. She found that sentence length, sentence variety, and amount of subordination correlated with intelligence at the .01 level of significance.

Intelligence and vocabulary yielded the highest correlation in Loban's study (1963) of the language of elementary school children. Bear (1939) studied children's growth in the use of written language from year to year. She analyzed twelve thousand compositions written by children in twenty-four schools in St. Louis, and found that general development of sentence power correlated with mental age.

Bernstein's research (1960) with British working class youth revealed that language proficiency was grossly depressed in relation to scores on a nonverbal intelligence test. He felt the level of linguistic skill was independent of potential intelligence. When Servey (1959) experimented with one thousand eighty pupils in grades three through six to discover whether two methods of motivation resulted in higher quality

of writing, he found that no statistical relationship existed between intelligence and the quality of writing.

Frogner (1939) studied the grammar approach versus the thought approach in teaching sentence structure. Her results supported the hypothesis that maturity rather than intelligence affected the percentage of sentences containing dependent clauses.

Perhaps the most significant generalization supported in different studies pertains to sex differences. Girls have shown slight superiority over boys in nearly every aspect of language that has been studied (McCarthy, 1954). Gough (1965) reported that girls exceeded boys on all written composition scores. LaBrant (1933) studied the written composition of children in grades four through twelve. She found that sex differences were insignificant except that girls tended to write longer compositions than boys. This finding was confirmed by Davis (1937) in her study of children from age five to ten years.

In a study of the oral language of preschool children with an age range of thirty to thirty-five months, Young (1941) concluded that girls surpassed boys in length of response as well as in sentence length. She found not a single exception to the general trend toward superiority of girls in length of sentences. Ausubel (1958) reported that girls tended to use longer sentences than boys, but the differences were not significant before age seven.

Harrell's study (1957), comparing the quality and rate of development of oral and written language in children, indicated that girls excelled boys only in length of response. In her study of the relationship between the oral and written compositions of third grade children, Eldredge (1965) reported sex differences favoring girls.

Parke (1961) reported that girls excelled in written composition, but boys produced better dictated composition. She found no significant differences in general linguistic ability of seven-year-old boys and girls. Loban (1963), in a report on the first seven years of his longitudinal study investigating the language development of children from kindergarten through grade twelve, noted that boys in his low group were clearly more limited in their repertoire of syntax than girls in the low group. However, boys in the high group tended to excel the girls in the high group. He found this same trend in the use of subordination. While boys in the low group used consistently less subordination than girls in the low group, the boys in the high group exceeded the girls in four out of the first seven years of their schooling. In Watts' study (1944) girls seemed to be about a year in advance of boys in the use of complex structures.

II. Structure of Language

McCarthy (1954) identified language as an area of a child's development in which more striking degrees of individual variation can be observed than in almost any other phase of growth. As a result, comparatively little has been done to arrive at any single index of development in the complex phenomena of language behavior. She pointed out that the most widely used measures for appraising language development have been those of vocabulary and length of sentence.

From her study McCarthy concluded that perhaps the best single index of the child's language development at the primary level was average length of sentence. Davis (1937) also found that mean sentence length increased with age and this finding was true in the studies of Bear (1939) and Frogner (1933). LaBrant (1933) investigated the language development

of children by use of the clause as the unit of comparison. Watts (1944) indicated that phrase subordination may represent a more mature aspect of language skill than clause subordination. Loban (1963) used a weighted index of subordination as a measure of language maturity.

Hunt (1965) agreed that the natural place to begin a quantitative study of writing development is with sentence length, but he cautioned against the usual definition of a sentence as whatever a student writes between a capital letter and a period or other end punctuation. Although such a definition may be objective, the young child often builds sentences better than he punctuates. Some children simply do not use periods, while others write innumerable and's where a mature writer would have written periods. If sentence length is assumed to be an index of language maturity, stated Hunt, then this definition of a sentence credits the child who under-punctuates with the greatest language maturity. If, on the other hand, the investigator edits the child's sentences by putting in periods where he "thinks" they should go, he impairs the validity of his results. Fries (1963) presented a passage which he says a group of teachers will cut into any number of sentences from three to nine. Although punctuated sentence length may be a satisfying index of language maturity for superior students or adults, Hunt pointed out that it is a misleading index for younger writers.

Loban (1963) stated that the ability to use and vary the structural patterns of English is one indication of effectiveness and control of the language. His subjects varied little in their use of the basic structural patterns; however, a subgroup which was rated high in language ability showed more proficiency in varying the elements within the patterns. Eldredge (1965) used Loban's method of language analysis to compare the oral and written language of third graders. She found the patterns which were

used most frequently for both oral and written language were subject-verb-object, subject-verb, and subject-verb-predicate nominative (or predicate adjective) in the order given.

Bear's analysis (1939) of children's written language from year to year indicated that children handled increasingly complex types of sentence structure from grade to grade. Although ninety per cent of first graders' sentences were simple sentences, this percentage decreased steadily to fifty per cent by eighth grade level. Dawson (1951) stated that children improve in sentence sense through the primary grades, tending at grade three level to use complete sentences. She found complex sentences appearing in written work as early as age eight. LaBrant (1933) and Frogner (1933) also found that the use of the complex sentence increased with age and with progress through the grades.

Kraus (1957) made a comparison of three methods of teaching sentence structure. She produced evidence in favor of using a thought approach, then concentrating on a few items of grammar for which weaknesses in student writing showed a need. When Frogner (1939) compared the grammar approach to the thought approach in teaching sentence structure, she also found that the thought method brought about superior results.

LaBrant (1933) and Frogner (1933) found sentence completeness to be a persistent problem of sentence structure, which was related to the complexity of sentence patterns and thought processes. Bear (1939) noted that in her study the run-on sentence became more frequent in the middle grades. She believed this was due to the students' attempted use of more complicated expression.

Martin (1955) attempted to find some of the significant factors in the language development of children and some of the developmental interrelationships among language variables of first graders. In measuring

the language factors Martin used seven types of instruments, such as total number of words used, number of different words used, and average length of response. Few developmental interrelationships were discovered at first grade level. Growth in each language variable followed an individual developmental pattern, with each child following a more or less zig-zag pattern of development.

Working with twenty-four children, seven years of age, Howell (1955) compared two hundred forty written and dictated compositions that grew out of shared learning experiences with compositions on assigned topics. The compositions were analyzed in terms of number of running words, number of different words, and number of generalizations. It was found that children wrote more running words and used more different words about shared experiences but dictated more on assigned topics. Bear (1939) reported the average number of sentences used in the stories of third graders to be 6.9. The average number of sentences used by girls was slightly higher than the number used by boys. In the primary grades very little correlation appeared between the length of stories and the number of complex sentences used. Complex sentences were used in all the elementary grades.

Clark (1954) studied the writing situations to which children respond. He found that in highly personal writing, children wrote longer sentences and used more dependent clauses. Early (1964) stated that what personal writing contributes to total growth in written expression is fluency. She emphasized the need, especially with younger children, to remove all impediments to the flow of ideas. She noted the relationship between the size of the child's vocabulary and the fluency of his writing.

"The ability to find words with which to express oneself--and to find them readily--is normally one mark of success with language" (Loban, 1963, p. 29). This ability includes amount or fluency of language as well as the vocabulary of use. Loban found that at the kindergarten level, subjects proficient in language had a median score of 67 on a vocabulary test of one hundred items, and the subjects low in language ability had a median score of 35. Vocabulary and proficiency in language appeared to be related at the kindergarten level. Using the Thorndike-Lorge word counts, the subjects (at all grade levels) proficient in language showed greater diversity of vocabulary than the subjects low in language ability.

Seashore (1948) emphasized the value of vocabulary size as an index for predicting achievement in other language skills. Both Horn (1926) and Rinsland (1945) conducted frequency studies of the words most used in student writing. Their studies attempted to ascertain what words children actually use and need at various stages of development. According to Piaget (1926), the child's vocabulary of recognition and understanding should be determined and studied separately.

The fluency of the subjects interviewed by Newman (1965) ranged from 12 to 287 words during a two-minute time segment.

While the findings of Horne's (1966) study agree with other research findings (Holmes, 1959; Looby, 1939; Staiger, 1960) that children do not understand figures of speech to an appreciable degree, it presents evidence that instruction can help them gain a significantly greater understanding than those who do not have the instruction.

III. Methods of Presentation

In a survey of the practices in the teaching of composition in California public high schools, Meckel, Squire, and Leonard (1958) suggested the importance of reading as a source of ideas for writing. They also stressed the value of writing as a means of clarifying, organizing, and applying ideas gained from both reading and discussion. As a result of his experiment with fifty-six classes in two groups taught by two methods, Heys (1964) found that intensive reading improved writing.

Carlson's study in originality (1963) dealt with two hundred seventeen children in grades four, five, and six in California. The experimental groups were given eight lessons which included special stimulus materials consisting of books, records, pictures, and a box of miniature toys. The control groups were given stimulus materials consisting primarily of story titles. One story was written per week for ten weeks. Trained judges, following stated procedures, rated the stories as to originality, vocabulary, and "general impression." According to these criteria, the experimental group wrote better stories after four of the lessons, but did no better than the control group after the last four lessons.

Edmund (1958) studied the relationship between prior experiences and the creative quality of stories of fifth grade children. He compared stories about direct experiences with stories about experiences derived from books, radio, television, and other sources. He found that fifth and seventh grade pupils wrote compositions of higher creative quality when writing was from derived experiences, but found no differences in the writing of the ninth grade pupils. Clark (1954) worked with

sixth graders for a year, and found that when pupils wrote compositions involving their own feelings and emotions they responded more freely, and their writing had better quality and interest. He stated that impersonal subjects were handled better when the writer told his feelings about the subject. Yuen and his associates (1962) used the electric portable typewriter as an instructional tool in the fourth grade language arts. This method was found effective in stimulating an interest in writing and a desire to write. They felt this use of the typewriter was conducive to creative writing.

According to a report by Carey (1962), a group of educators in Houston, Texas, recognized the need for encouragement in original composition and utilized local educational television facilities to implement their project. They presented telecasts to the classes, after which the students wrote stories. Each telecast was designed to stimulate imagination, plant ideas, present situations, and build vocabulary. Leeson (1965) presented two classroom approaches to improve creativity with words. They were the use of Haiku, an old Japanese import, to stimulate creative composition of simple rhymeless poetry, and the use of pictures pulled from an envelope as a springboard into creative writing. Shelby (1965) used words that arouse emotions with her second grade pupils. Words such as love, tears, hate, blood, mean, and scary served as stimuli for expressive writing. Bierbaum (1966) used the book Stop, Look, and Write by Leavitt and Sohn, Bantam Books, New York, to stimulate creative writing. This book, containing one hundred photographs covering a variety of subjects, was designed for use with creative writing. Bierbaum obtained good results from third through sixth graders by using this visual approach to writing. The child merely looked at a picture and wrote his reactions.

Children can and do learn to read (Harris, 1964) and compose (Ewing, 1967) in a variety of ways and what is beneficial instruction for one pupil may not be effective for another. Where other factors, i.e., socio-economic status, achievement, and intelligence are favorable, literary models will help to improve children's writing (Mills, 1967).

In the preparation of curriculum materials for the improvement of teaching written composition in K-6, or for any cognitive process at any level, the rationale for the task must be continuously reassessed and restated. Previous investigations that supplied base line data must be replicated using different populations and different variables for analysis. The studies of Georgia ECSC conducted by former elementary school teachers have been useful for this purpose. In addition they have served as a bridge between the cooperating elementary classroom and the stockpile of research in this field. It is anticipated that they will meld into a foundation for continued field-testing of the Georgia ECSC materials.

References

Ausubel, D. P. Theory and Problems of Child Development. New York: Grune and Stratton, 1958.

Bear, Mata V. "Children's Growth in the Use of Written Language," Elementary English Review, 1939, 16, 312-319.

Bernstein, B. "Language and Social Class," British Journal of Sociology, 1960, 11, 271-276.

Bierbaum, M. "How to Make a Picture Really Worth a Thousand Words," Grade Teacher, 1966, 83, 70-71.

Braddock, R., Lloyd-Jones, R., and Schoer, L. Research in Written Composition. Champaign, Ill.: National Council of Teachers of English, 1963.

Carey, Mary. "Write and Speak Creatively," Instructor, 1962, 72, 51.

Carlson, Ruth K. "Recent Research in Originality," Elementary English, 1963, 40, 583-589.

Clark, G. R. "Writing Situations to Which Children Respond," Elementary English, 1954, 31, 150-155.

Conrad, L. H. Teaching Creative Writing. New York: Appleton-Century-Crofts, 1937.

Davis, Edith A. "The Development of Linguistic Skills in Twins, Singletons with Siblings and Only Children from Age Five to Ten Years," University of Minnesota: Institute of Child Welfare, 1937, No. 14.

Dawson, Martha E. A Study of Vocabulary Size of Third Grade Pupils in Relation to Home-environmental Factors. Unpublished Doctoral Dissertation, Indiana University, 1957.

Dawson, Mildred A. Teaching Language in the Grades. New York: World Book Company, 1951.

Day, Ella. "The Development of Language in Twins: I. A Comparison of Twins and Single Children," Child Development, 1932, 3, 179-199.

Downey, Catherine M. An Evaluation of a Program of Teaching Independent Writing in Grade Three. Unpublished Doctoral Dissertation, Boston University, 1963.

Early, Margaret J. "Teaching and Research in Written Composition in the Elementary School," Paper Read at ECSC Conference, University of Georgia, May, 1964.

Edmund, N. R. "The Relationship between Prior Experiences and the

Creative Quality of Stories by Fifth Grade Children," Elementary English, 1958, 35, 248-249.

Eldredge, Cornelia C. A Study of the Relationship Between the Oral and Written Composition of Third Grade Children. Unpublished Doctoral Dissertation, University of Georgia, 1965.

Ewing, June Brooks. A Study of the Influence of Various Stimuli on the Written Composition of Selected Third Grade Children. Unpublished Doctoral Dissertation, University of Georgia, 1967.

Fries, C. C. The Structure of English, An Introduction to the Structure of English Sentences. New York: Holt, Rinehart and Winston, Inc., 1963.

Frogner, Ellen. "Problems of Sentence Structure in Pupils' Themes," English Journal, 1933, 22, 742-749.

Frogner, Ellen. "Grammar Approach vs. Thought Approach in Teaching Sentence Structure," English Journal, 1939, 28, 518-526.

Gough, Jessie Post. An Inquiry into Children's Understanding of the Time Concept with Implications for Written Composition. Unpublished Doctoral Dissertation, University of Georgia, 1965.

Gregory, Emily B. A Study of Children's Understanding of Certain Modifying Elements as Determined by Experimental Tests and the Relation of Such Understanding to Selected Variables. Unpublished Doctoral Dissertation, University of Georgia, 1964.

Harrell, L. E. A Comparison of the Development of Oral and Written Language in School-age Children. Monographs of the Society for Research in Child Development, 1957, 22, No. 3.

Harris, Ethel B. An Experiment in the Use of Programmed Linguistic Reading Materials to Improve the Reading Ability of a Group of Second Grade Pupils Who Are Reading Below Grade Level. Unpublished Doctoral Dissertation, University of Georgia, 1964.

Hatfield, W. W. (ed.) An Experience Curriculum in English. New York: Appleton-Century-Crofts, 1935.

Heys, F. "The Theme-a-week Assumption," Elementary English, 1964, 41, 96.

Holmes, Elizabeth Ann. Children's Knowledge of Figurative Language. Unpublished Master's Thesis, University of Oklahoma, 1959.

Horn, E. A Basic Writing Vocabulary. Iowa State University Press, 1926.

Horne, Rose Nell. A Study of the Use of Figurative Language by Sixth Grade Children. Unpublished Doctoral Dissertation, University of Georgia, 1966.

Howell, Miriam. The Control of Mechanics of Expression and the Quality of Preceding Experiences as Differentiating Factors in Certain Aspects of Compositions of Seven-year-olds. Unpublished Doctoral Dissertation, University of Wisconsin, 1955.

Hunt, K. W. Grammatical Structures Written at Three Grade Levels. Champaign, Ill.: National Council of Teachers of English, 1965, Research Report No. 3.

Kraus, Sylvia. "A Comparison of Three Methods of Teaching Sentence Structure," English Journal, 1957, 46, 275-281.

LaBrant, Lou. "A Study of Certain Language Developments of Children in Grades Four through Twelve, Inclusive," Genetic Psychological Monographs, 1933, 14, 387-491.

Leeson, J. "Two Interesting Classroom Approaches that Improve Creativity with Words," Grade Teacher, 1965, 82, 38-39.

Lloyd, D. J. and Warfel, H. R. American English in Its Cultural Setting. New York: Alfred A. Knopf, 1956.

Loban, W. D. The Language of Elementary School Children. Champaign, Ill.: Nation Council of Teachers of English, 1963, Research Report No. 1.

Looby, Ruth. "Understandings Children Derive from Their Reading," Elementary English Review, 1939, 16, 58-62.

Lorge, I. and Kruglov, L. "Relationship between the Readability of Pupils' Compositions and Their Measured Intelligence," Journal of Educational Research, 1950, 43, 467-474.

Lyman, R. L. Summary of Investigations Relating to Grammar, Language, and Composition. Supplementary Education Monograph. University of Chicago Press, 1929.

Lyman, R. L. The Enrichment of the English Curriculum. University of Chicago Press, 1932.

McCarthy, Dorothea. "Language Development in Children," in L. Carmichael (ed.) Manual of Child Psychology. Second Edition. New York: John Wiley and Sons, 1954, 492-630.

McClellan, J. Creative Writing Characteristics of Children. Unpublished Doctoral Dissertation, University of Southern California, 1956.

Martin, C. I. "Developmental Interrelationships Among Language Variables in Children of the First Grade," Elementary English, 1955, 32, 167-171.

Maze, Nellie M. A Study of the Correlations Between Musicality and Reading Achievement at First Grade Level in Athens, Georgia. Unpublished Doctoral Dissertation, University of Georgia, 1967.

Meckel, H. C., Squire, J. R., and Leonard, V. T. Practices in the Teaching of Composition in California Public High Schools. Sacramento: California State Department of Education Bulletin, 1958, 27, No. 5.

Millard, C. V. Child Growth and Development in the Elementary School Years. Boston: D. C. Heath, 1951.

Mills, Editha B. An Experimental Study in the Use of Literary Models in Written Composition. Unpublished Doctoral Dissertation, University of Georgia, 1967.

Milner, Esther. "A Study of the Relationships between Reading Readiness in Grade One School Children and Patterns of Parent-Child Interaction," Child Development, 1951, 22, 95-112.

Newman, Rhoda S. An Analysis of the Oral Language of Selected First Grade Children. Unpublished Doctoral Dissertation, University of Georgia, 1965.

Parke, Margaret B. "Composition in Primary Grades," in Children's Writing: Research in Composition and Related Skills. Champaign, Ill.: National Council of Teachers of English, 1961.

Piaget, J. The Language and Thought of the Child, tr. by M. Warden. New York: Harcourt, Brace and World, 1926.

Rinsland, H. D. A Basic Vocabulary of Elementary School Children. New York: Macmillan, 1945.

Robbins, Phyllis. Incentives to Composition. Harvard University Press, 1936.

Seashore, R. H. "The Importance of Vocabulary in Learning Language Skills," Elementary English, 1948, 25, 137-153.

Seely, H. F. On Teaching English. New York: American Book Company, 1933.

Servey, R. E. The Effect of the Situation on the Quality of Children's Writing. Unpublished Doctoral Dissertation, University of Southern California, 1959.

Shelby, B. "One-word Stimulus Leads to Expressive Creative Sentences," Grade Teacher, 1965, 82, 46.

Smith, Dora V. Instruction in English. U. S. Office of Education Bulletin, No. 17, 1933.

Smith, Dora V. Evaluating Instruction in Secondary School English. National Council of Teachers of English, 1941, English Monograph, No. 11.

Staiger, R. C. "Misunderstood Davy: A Footnote," Elementary English, 1960, 37, 190-191.

Stephens, S. D. Individual Instruction in English Composition. Harvard University Press, 1928.

Strickland, Ruth G. "Evaluating Children's Composition," Elementary English, 1960, 37, 321-330.

Sutton, Rachel S. "An Analysis of Factors Related to Educational Achievement," Journal of Genetic Psychology, 1961, 98, 193-201.

Templin, Mildred C. Certain Language Skills in Children. University of Minnesota Press, 1957.

Turner, A. L. "Theories and Practices in Evaluation and Correction of Oral and Written Composition," Peabody Journal of Education, 1942, 19, 266-273.

Vordenberg, W. "How Valid are Objective English Tests?" English Journal, 1952, 41, 428-429.

Watts, A. F. The Language and Mental Development of Children. Boston: D. C. Heath and Co., 1944.

Wilson, L. A. "A Study of Some Influencing Factors Upon and the Nature of Young Children's Written Language," Journal of Experimental Education, 1963, 31, 371-380.

Wood, Lavinia R. A Study of the Relationship of Performance in Written Composition to Performance in Mathematical Reasoning in Elementary School Children. Unpublished Doctoral Dissertation, University of Georgia, 1967.

Young, Florene M. "An Analysis of Certain Variables in a Developmental Study of Language," Genetic Psychological Monographs, 1941, 23, 3-141.

Young, Florene M. "Language Growth and Development," in K. C. Garrison (ed.) Growth and Development. New York: Longmans Green (David McKay Co.), 1952, 222-255.

Yuen, J., Carrillo, L., Bjonerud, C., and Chambers, D. "The Electric Portable Typewriter as an Instructional Tool in Fourth Grade Language Arts," Elementary English, 1962, 34, 101-108.

OE 6000 (REV. 9-66)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION

ERIC REPORT RESUME

(TOP)

ERIC ACCESSION NO.	CLEARINGHOUSE ACCESSION NUMBER	RESUME DATE	P.A.	T.A.
		06 30 68		

IS DOCUMENT COPYRIGHTED? YES ☐ NO ☒

ERIC REPRODUCTION RELEASE? YES ☒ NO ☐

001

TITLE

100 Materials for a Curriculum in Written Composition, K-6
101
102 Book Five, Research in Cognate Aspects of Written Composition
103

PERSONAL AUTHOR(S)

200 English Curriculum Study Center

INSTITUTION (SOURCE) — SOURCE CODE

300 College of Education, University of Georgia, Athens, Georgia 30601

310 REPORT/SERIES NO. ECSC 5

OTHER SOURCE — SOURCE CODE

320 none

330 OTHER REPORT NO.

OTHER SOURCE — SOURCE CODE

340 none

350 OTHER REPORT NO.

400 PUB'L. DATE 06 – 30 – 68 | CONTRACT/GRANT NUMBER HE 078, Contract OE 4-10-017

PAGINATION, ETC.

500
501 96 pp.

RETRIEVAL TERMS

600 English Curriculum Study Center
601 Materials for a Curriculum in Written Composition, K-6
602 Twenty Documents
603
604
605
606

IDENTIFIERS

607 Project No. HE 078, Contract OE 4-10-017

ABSTRACT

800 ECSC 5. Book Five, Research in Cognate Aspects of Written Composition, is
801 composed of a series of cross-sectional studies in the multiple approach to
802 the process of composition, structure of the language, and methods of
803 presentation. These studies are valuable in understanding the ecology of
804 a language and in the development of criteria for the evaluation of these
805 curriculum materials when they are used in the classroom through analysis
806 of composition behavior and definition of relevant variables to be tested.
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822