R E P O R T R E S U M E S

ED 019 144 24 PS 000 931

A COMPARISON BETWEEN THE ORAL AND WRITTEN RESPONSES OF FIRST-GRADE CHILDREN IN I.T.A. AND T.O. CLASSES.

BY- SANDEL, LENORE
HOFSTRA UNIV., HEMPSTEAD, N.Y.

REPORT NUMBER BR-7-8220 PUB DATE 67
EDRS PRICE MF-$0.25 HC-$0.76 17P.

DESCRIPTORS- *GRADE 1, *INITIAL TEACHING ALPHABET, ORTHOGRAPHIC SYMBOLS, CREATIVE WRITING, LANGUAGE ABILITY, *SPEECH SKILLS, *COMPOSITION SKILLS (LITERARY), ANALYSIS OF VARIANCE, INTELLIGENCE LEVEL, VOCABULARY DEVELOPMENT, *CORRELATION, PINTNER CUNNINGHAM PRIMARY TEST,

TWO FIRST GRADE CLASSES, ONE USING THE INITIAL TEACHING ALPHABET (ITA) AND ONE USING TRADITIONAL ORTHOGRAPHY (TO), WERE RANDOMLY SELECTED FROM A SCHOOL IN EACH OF 4 SCHOOL DISTRICTS. THE TOTAL SAMPLE CONSISTED OF 100 CHILDREN IN ITA CLASSES AND 100 CHILDREN IN TO CLASSES. THE CLASSES WERE GROUPED HETEROGENEOUSLY. THE PINTNER- CUNNINGHAM PRIMARY TEST, FORM A, WAS ADMINISTERED TO DETERMINE THE INTELLIGENCE RATING FOR EACH SUBJECT. THE DATA GATHERED INCLUDED 1 ORAL RESPONSE AND 1 WRITTEN RESPONSE FOR EACH PUPIL IN THE STUDY FOR EACH OF 3 STIMULI. THE RESULTS SUGGEST THAT THE WRITTEN LANGUAGE OF CHILDREN INSTRUCTED IN ITA, WHEN COMPARED WITH CHILDREN INSTRUCTED IN TO, SHOWED (1) AN INCREASED QUANTITY OF WRITING, (2) A GREATER VARIETY OF VOCABULARY EMPLOYED IN THE COMPOSITION, AND (3) AN INCREASED NUMBER OF THOUGHT UNITS WHEN EVALUATED BY CATEGORY OF INTELLIGENCE AND ORAL LANGUAGE COMPETENCY. THE RESULTS ALSO SUGGEST THAT A BROADER SAMPLE BE EVALUATED TO INCLUDE SUCH DISCRIMINATING FACTORS AS CLASSROOM PROCEDURE, INSTRUCTIONAL MATERIAL, AND CORRELATION WITH RELATED LANGUAGE ARTS ACTIVITIES. THE LONGITUDINAL EFFECT ON THE WRITTEN LANGUAGE COMPETENCY OF THE FIRST GRADE CHILDREN IN THE PILOT STUDY WAS TO BE DETERMINED WHEN THET PROCEEDED TO SECOND GRADE. (CO)

A COMPARISON BETWEEN THE ORAL AND WRITTEN RESPONSES OF FIRST-GRADE CHILDREN IN i.t.a. AND T.O. CLASSES

PROJECT NO. 7-8220 -24
PA-24

LENORE SANDEL

HOFSTRA UNIVERSITY
HEMPSTEAD, NEW YORK

1967

THE RESEARCH REPORTED HEREIN WAS SUPPORTED BY THE

UNITED STATES OFFICE OF EDUCATION

ACKNOWLEDGEMENTS

Sincere gratitude and respect are expressed to Dr. Harvey Alpert whose contribution of the statistical design and continual skillful guidance provided impetus and distinction to the study.

The confidence, enthusiasm and direction of Dr. Harold Tanyzer supported the progress of the project from its inception through to successful completion.

Deep appreciation is expressed to Mrs. Gerness Alpert, Research Assistant, through whose dedicated efforts, sensitive understanding and abundant patience, the numerous oral and written responses were gathered and analyzed.

The superior secretarial skills of Mrs. Katherine Beesch contributed to the accuracy and completion of the manuscript.

A special note of thanks to Dr. Nathan Goldfarb, Director of the Hofstra Computer Center, and Mr. Michael Goldberg, Programmer, for their cooperation in the processing of the data.

In the knowledge that the entire project was due to the support and sanction of the department chairman, grateful appreciation is expressed to Dr. Miriam Schleich, Director of the Hofstra Reading Center, whose encouragement of professional research is evidenced in her constant effort to provide the departmental conditions necessary for independent research.

To the school principals who made school facilities available, and to the classroom teachers who cooperated so generously, particular gratitude is expressed. Their names are noted in salutation:

School #6, Lawrence
Mr. Harry Nathanson, Principal
Mrs. Claudia Palladino, teacher
Miss Barbara Vicarro, teacher

Oak Drive School, Plainview
Mr. Anthony J. Cirillo, Principal
Mrs. Stella Willner, teacher

Joyce Road School, Plainview
Mr. Marvin E. Witte, Principal
Mrs. Carolyn Knipfer, teacher

Morris School, Rockville Centre
Mr. Paul W. Shannon, Principal
Mrs. Joanne Sapanaro
Mrs. Felicia Poretz

Central Elementary School,
South Huntington
Mr. Robert McNutt, Principal
Mrs. Mary Fernan
Mrs. Christine Newell

A COMPARISON BETWEEN THE ORAL AND WRITTEN RESPONSES OF FIRST-GRADE CHILDREN IN i.t.a. AND T.O. CLASSES (U.S.O.E. NO. 7-8220)

In a number of recent research studies comparing the initial teaching alphabet to traditional orthography, it has been observed that the creative, or independent, writing of first-grade children appears to represent, with considerable accuracy, their oral language competency. Many of the cooperating teachers and research personnel observed a marked increase in the quantity of writing done by the first-grade children, as well as an increase in quality. These observations are not supported by any objective data. The primary purpose of this study is to compare the writing competency of students being taught to read in i.t.a. to the writing competency of children learning to read in traditional orthography; to determine whether the reports of improved composition are actual fact or are the result of enthusiasm for a relatively new and novel approach to the teaching of reading.

Research personnel have reported that children instructed in the i.t.a. medium are better able to translate their thoughts as expressed in speech to a fairly similar form in writing because of the sound regularities that exist in i.t.a.; whereas in T.O., children are unable to translate their speech and thoughts because of problems in spelling resulting from inconsistencies and irregularities of traditional orthography. This pilot study is an attempt to evaluate these observations.

RELATED RESEARCH

Teachers participating in the Beginning Reading Study (Tanyzer, Alpert and Sandel 1965) sponsored by the New York State Education Department, report that their i.t.a. classes were capable of "considerably more in creative writing" than were the T.O. classes they had taught in previous years.

The results of the questionnaires submitted to second-grade teachers in the second year of the Beginning Reading Study (1966) suggest that "the writing ability of children, in terms of independently being able to say what they want to--seems to be somewhat better when children are instructed in i.t.a. than when they are instructed in the irregular T.O. medium." According to the i.t.a. Foundation Report (1966), one of the most frequent comments of teachers of i.t.a. taught children is that they "write more, with a more advanced vocabulary, with language more like the child's spoken language, and with greater independence of the teacher than do children whom they have previously taught with T.O." Rebecca M. Stewart (1965) of the Bethlehem area school system, observes that the compositions of i.t.a. taught children contain complete, correctly punctuated sentences and a "tremendous" range of vocabulary.

A report of the study in Lampoc, California, states..."On a subjective basis, the i.t.a. stories were definitely more comprehensive, flowed more easily, and included more complex thought processes as well as more colorful wording and phrases." From Newburgh, New York, the following is reported..."Creative writing was cited as one of the most satisfying results of the i.t.a. program in that children are able to express themselves without hesitation in written work and are able to use vocabulary far above that of the T.O. children.", i.t.a. Bulletin (1967).

Relevant studies relating to written composition in the primary grades include Oftedal's (1948) study of "picture writing" with twenty-five third-grade children in which two picture-written stories and two handwritten stories of each of the thirteen pupils were analyzed for elements of expression. This study verified her belief that writing tends to inhibit the thought of young children. Strickland (1950) states that dictation appears to call for more precise and organized thinking than is required in spontaneous storytelling; and Loban (1963), in his longitudinal study, collected and analyzed language used by the same children through their kindergarten and first six years of elementary school. The summary of Loban's findings included the inter-relations among language arts, but the oral language and written language studies were conducted in the upper elementary grades. The first- and second-grades were not studied for competency in writing, since independent writing activities were not conducted at that level.

Burrows (1966) refers to the first-grade writing experiences of the "telling-dictating-helping-copying" procedure. She describes the impasse of the transition from dictating and copying to independent writing and states, "In order to preserve the all-important independent idea, the teacher writes the final portion from dictation."

PROCEDURES

A. Population of the sample

Two first-grade classes, one i.t.a. and one T.O., were randomly selected from a school in each of four school districts which are continuing participating in the current project, "Beginning Reading--The Effectiveness of i.t.a. and T.O."--No. A-75-64.

The total sample consists of approximately 100 children in i.t.a. classes and 100 children in T.O. classes. The classes are grouped heterogeneously following school procedures. The districts are similar, based on characteristics determined for the continuing comprehensive study. The experimental and control groups are equated on the basis of teacher-competency and heterogeneous grouping as determined by the school principal.

B. Data and Instrumentation

The Pintner-Cunningham Primary Test, Form A was administered to determine the intelligence rating for each subject. The data gathered included one oral response and one written response for each pupil in the study for each of three stimuli. The oral stimuli were administered by a research assistant on a one-to-one basis with the pupil and the response was recorded on tape. Each writing stimulus was administered as a whole class activity. The written samples were gathered on three consecutive school days. Half of the children received the stimulus and responded in writing first then, later, were asked to make an oral response to the same stimulus. In the other half of the sample the oral response preceded the written response. Three stimuli were used in order to provide maximum opportunity for the youngster to react and respond on the basis of his experience and ability. The stimuli were designed to elicit (1) the child's description of a given object: "How would you describe or tell about a car to a friend who never saw one?"; (2) the child's relating of a given experience: "Tell me about a game you like to play."; (3) the child's description of an emotional reaction to a given experience: "The first day you went to school was a special day. Can you tell me how you felt that day?" All the questions

were introduced with readiness discussion and were consistent since they were administered to the total sample by the research assistant assigned to the project.

C. Statistical Design

A total of three samples for each measure, in oral and in written responses, was recorded. For the three oral responses and three written responses of each child, the following data was tabulated: (1) the number of running words, (2) the number of different words and (3) the number of thought units.

An analysis of variance was computed utilizing the number of running words, the number of different words and the number of thought units as the dependent variables. The independent variable was intelligence, with the total group (i.t.a. and T.O. groups) divided into three groups intellectually on the basis of the Pintner-Cunningham Primary Test. The statistical comparisons for each of the three dependent variables were determined for each of the three categories of intelligence.

An analysis of variance was also used to determine the variability between and within the treatment groups for each criteria (number of running words, number of different words, number of thought units). In this study, a thought unit is defined as a simple sentence or its equivalent. The component causes of a compound sentence are considered separate thought units. The independent variable in the second analysis was the oral response of the child to the three stimuli in terms of the number of running words, variety of language utilized and number of

thought units. For each of these three variables, the total sample (i.t.a. and T.O.) was divided into three groups--high, average and low--for each of the three measures of oral response. The written responses of those high in each of the three variables of oral language response was statistically compared with a similar procedure utilized for those average and low in oral response. The design appears as follows:

ANALYSIS OF VARIANCE DESIGN

				Intelligence: Low	Average	High
I & II	Oral Responses and Written Responses to Stimuli	i.t.a.	1. No. of Running Words			
			2. No. of Different Words			
			3. No. of Separate Thought Units			
		T.O.	1. No. of Running Words			
			2. No. of Different Words			
			3. No. of Separate Thought Units			
				Oral Responses: Low	Average	High
III	Written Responses to Stimuli	i.t.a.	1. No. of Running Words			
			2. No. of Different Words			
			3. No. of Separate Thought Units			
		T.O.	1. No. of Running Words			
			2. No. of Different Words			
			3. No. of Separate Thought Units			

The initial purpose of this pilot study was to determine whether a comparison of the written language of first-grade children learning to read and write with i.t.a. would result in (1) an increased quantity of writing, (2) a greater variety in the vocabulary employed in the composition and (3) an increased number of separate thought units. In addition,

measures of the oral language of first-grade children learning to read and write with i.t.a. and T.O. were also evaluated for each of the three dependent variables by category of intelligence. It was expected that the oral language of first-grade children would not be affected to any great extent by the medium in which the child was being instructed in reading. Hence, the oral responses of the child served as a control. It was hypothesized that the written language of children instructed in i.t.a. would not be statistically different from the written language of children being instructed in traditional orthography, and that the oral language of the two experimental groups would also be similar in the three dependent variables.

ANALYSIS OF THE DATA

Table 1 illustrates the results of an analysis of variance utilizing the three criteria as dependent variables with intelligence as the independent variable.

TABLE 1

SIGNIFICANCE OF THE DIFFERENCE WITHIN THE MEAN SCORES OF ORAL AND WRITTEN LANGUAGE SAMPLES OF LOW, AVERAGE AND HIGH I.Q. i.t.a. and T.O. GROUPS FOR THE THREE VARIABLES: NUMBER OF RUNNING WORDS (VAR. 1), NUMBER OF DIFFERENT WORDS (VAR. 2), NUMBER OF THOUGHT UNITS (VAR. 3).

I.Q.:		Low		Average		High		F
		i.t.a. N=31	T.O. N=37	i.t.a. N=29	T.O. N=34	i.t.a. N=36	T.O. N=30	
Var. 1	Oral	176.29	150.59	228.37	152.79	185.97	192.40	2.76
	Written	87.64	34.05	114.58	48.76	122.83	57.70	99.18**
Var. 2	Oral	93.12	78.94	113.89	86.44	97.27	96.00	3.99*
	Written	54.12	22.54	69.34	31.55	73.58	37.26	108.34**
Var. 3	Oral	25.00	20.94	33.03	24.20	27.25	26.33	4.76*
	Written	14.35	4.97	17.65	8.23	19.61	9.26	108.71**

* Significant beyond .05 level of confidence
** Significant beyond .01 level of confidence

There is no significant difference between the number of running words in the oral responses of the i.t.a. and T.O. groups in all categories of intelligence. There is a significant difference, however, in both the number of different words and the number of thought units in the oral responses of i.t.a. and T.O. groups in the low and average I.Q. categories. Since the difference is in favor of the i.t.a. group, this suggests that the quality of language of youngsters of low and average intelligence may be affected by the medium of instruction. There appears to be no significant difference in the oral language between the groups within the high I.Q. category. The second analysis of variance reported later was computed with the oral language used as a control to provide for this occurrence. Table 1 indicates also that there is a significant difference between the written language responses of the i.t.a. and T.O. groups within and between the high, average and low I.Q. categories for each of the three criteria.

The results of the comparison of the oral and written responses for the three criteria can be seen in Table 2.

TABLE 2

SIGNIFICANCE OF THE DIFFERENCE BETWEEN THE MEAN SCORES OF ORAL AND WRITTEN LANGUAGE SAMPLES OF LOW, AVERAGE AND HIGH I.Q. i.t.a. AND T.O. GROUPS FOR THE THREE VARIABLES: NUMBER OF RUNNING WORDS (VAR. 1), NUMBER OF DIFFERENT WORDS (VAR. 2), NUMBER OF THOUGHT UNITS (VAR. 3)

I.Q.:		Low			Average			High		
		N	Oral	Written	N	Oral	Written	N	Oral	Written	F
Var.1	i.t.a.	31	176.29	87.64	29	228.37	114.58	36	185.97	122.83	32.53**
	T.O.	37	150.59	34.05	34	152.79	48.76	30	192.40	57.70	86.23**
Var.2	i.t.a.		93.12	54.12		113.89	69.34		97.27	73.58	35.54**
	T.O.		78.94	22.54		86.44	31.55		96.00	37.26	118.23**
Var.3	i.t.a.		25.00	14.35		33.03	17.65		27.25	19.61	38.72**
	T.O.		20.94	4.97		24.20	8.23		26.33	9.26	126.42**

** Significant beyond .01 level of confidence

In both i.t.a. and T.O. groups, in all I.Q. categories, there is a significant difference between the oral and written responses. There appears to be a greater significance between the oral and written responses of the T.O. groups in all categories. This would suggest that the written responses of the i.t.a. groups more nearly represent the oral language competency in the respective I.Q. categories. A significant difference can also be seen between the low, average and high I.Q. categories within both i.t.a. and T.O. groups.

The written responses of i.t.a. and T.O. groups were compared for all criteria with the oral language as the independent variable. The total sample of oral language responses for each measure was divided into low, average and high categories. The results of this analysis of variance can be seen in Table 3.

TABLE 3

SIGNIFICANCE OF THE DIFFERENCE BETWEEN THE MEAN SCORES OF THE THREE VARIABLES FOR i.t.a. AND T.O. WRITTEN LANGUAGE SAMPLES OF LOW, AVERAGE AND HIGH ORAL LANGUAGE COMPETENCY

Oral Language	Running Words			F	Different Words			F	Thought Units			F
	Low	Average	High		Low	Average	High		Low	Average	High	
N	28	33	35		24	36	36		24	30	42	
Written i.t.a.	98.50	100.24	125.60	95.21**	62.04	61.11	73.58	100.09**	15.91	16.93	18.40	97.52**
Written T.O.	38.26	45.64	56.65		24.68	30.70	36.40		6.28	6.35	9.89	

** Significant beyond .01 level of confidence

The difference between the written responses of the i.t.a. and T.O. groups is significant for each measure, favoring the i.t.a. groups. There also appears to be a significant difference between the i.t.a. and T.O. written responses within each measure and between the high, average and low categories of all written language competency. In both analyses, using the measures given, the i.t.a. classes indicate a greater use of words, more variety in the use of words, and a greater number of thought units, when the oral and written language samples are compared between and within the i.t.a. and T.O. groups.

Word Frequency

The total number of samples included 288 samples from i.t.a. classes and 300 samples from T.O. classes. A total number of 913 words were tabulated from the 588 writing samples. Of the 913 words, 102 words were represented in T.O. writing only; 499 words were represented in i.t.a. writing only; 312 words were represented in both i.t.a. and T.O. writing samples. Of the 312 words, it was noted that 33 words were represented more frequently in the T.O. samples than in i.t.a. samples. In the remaining 279 words the frequency was higher in the i.t.a. samples--or equal to the T.O. samples. Of the 499 words which were represented in the i.t.a. samples alone, the range and variability of vocabulary suggests further studies relating to the speaking, listening and writing ability of these youngsters. It is also interesting to note that of the 33 words which were represented more often in the T.O. samples than in the i.t.a. samples, a large percentage (of these words) constitutes the sight word vocabulary

familiar to the first-grade curriculum. An examination of the spelling variations in the written samples of the i.t.a. and T.O. groups was made. Three categories were considered for this analysis: (1) representation of infantile speech, (2) representation of mispronunciation, (3) representation of spelling consistent with phonemic associations but incorrect in either i.t.a. or T.O. forms. Some examples in each category appear significant. Infantile speech was recorded more frequently in the i.t.a. samples than in the T.O. samples, and in words either absent from or infrequent in the written vocabulary of the T.O. children. Such words as bafroom (bathroom), froe (throw), mouf (mouth), and wif (with) indicate a confusion between "f" and "th" sounds. The word faebit (favorite) indicates the confusion of "b" and "v". In the words chræn (train) and chrap (trap), the "ch" sound is given for "t". Both i.t.a. and T.O. samples indicated haf representing the word have.

In the second category of mispronunciation, the following appears significant:

Such words as haftur and hafta (have to), shœdus (showed us), drievit (drive it), ficsit (fix it), represent two words which the youngsters obviously hear as one. Both i.t.a. and T.O. samples evidenced a "d" for "t" in the word motor (either moder, modor or even m d r). The word garbage was represented as gobich, battery as badry, driving wheel as jieveenweel. These mispronunciations seem to indicate that through listening to inaccurate or inarticulate speech the children reproduce the inaccuracies in their own oral and written expression.

For the category representing phonemic spelling, which appears to be

consistent with both speech patterns and the child's experience with sound—letter association, the following words are interesting examples:

From the i.t.a. samples:

Soriest (surprised), srtnntlee (certainly), frnechr (furniture), wrc (work), pusishin (position), rithmotic (arithmetic), srkl (circle), difrint (different), lirnd (learned), yusd (used).

From the T.O. samples:

Peepul (people), liec (like), rid (ride), gos (goes), wht (what), frst (first), playsis (places), yousful (useful), modrsikl (motorcycle).

The examples of T.O. spelling in this category indicate that the children seek some representative means of expressing oral vocabulary in written form. They appear to use familiar associations in writing unfamiliar words: you, play, ie and i for long i sound.

SUMMARY AND CONCLUSION

The results of this pilot study suggest the following:

1. The written language of children instructed in i.t.a. is statistically different from the written language of children being instructed in traditional orthography when compared with each of three measures or criteria: (1) number of running words, (2) number of different words (3) number of thought units.
2. The written language of children instructed in i.t.a., when compared with children instructed in T.O., resulted in (1) an increased quantity of writing, (2) a greater variety of vocabulary employed in the composition and (3) an increased

number of thought units when evaluated by category of intelligence.

3. The written language of children instructed in i.t.a., when compared with children instructed in T.O., resulted in (1) an increased quantity of writing, (2) a greater variety of vocabulary employed in the composition and (3) an increased number of thought units when evaluated by category of oral language competency.

4. This comparison of the oral and written language appears to provide an approach to the evaluation of the written expression of primary grade children who are learning to read and write with i.t.a., thereby supporting observations by objective data.

5. The lesser degree of difference between the oral and written responses of children learning to read and write with i.t.a. when compared with children learning to read and write with T.O., suggests a greater compatibility between their thoughts as expressed in speech and, in translation, expressed in writing.

IMPLICATIONS FOR FURTHER STUDY

1. The results of this study suggest that a broader sample be evaluated to include such discriminating factors as classroom procedure, instructional materials and correlation with related language arts activities.

2. The longitudinal effect of the medium of instruction on the written language competency of the first-grade children in the pilot study may be determined when they proceed to second-grade.

3. Plans for teacher-guidance may be prepared and evaluated suggesting programs and procedures to maintain compatibility between the oral and written language competencies of the i.t.a. groups.

4. This pilot study may be replicated with an in-service language development program for teachers to be introduced as an independent variable in the design.

5. The effectiveness of an integrated speech program in first-grade may be evaluated through the writing of children being instructed in i.t.a. to determine whether less confusion of sounds appears in writing.

6. The relationship among instructional reading level, standardized reading test scores, oral language responses, and written responses should be studied.

REFERENCES

Burrows, Alvina Treut. They All Want To Write. New York: Holt, Rinehart and Winston, Inc., 1966, 18.

i.t.a. Bulletin. New York: Initial Teaching Alphabet Publications, Inc., Winter 1967, 4,2, 3-4.

i.t.a. Foundation Report. Hempstead, New York: Hofstra University, Spring 1966, 1, 1, 4.

Loban, Walter D. Research Report No. 1, The Language of Elementary School Children. Champaign, Illinois: National Council of Teachers of English, 1963.

Oftedal, Laura. Picture Writing. Elementary School Journal, September 1948, 49, 37-46.

Stewart, Rebecca W. Two Years with i.t.a.--An Interim Report of the Bethlehem-Lehigh Research Project. Hempstead, New York: Hofstra University 1965. The Initial Teaching Alphabet and the World of English, ed. Albert J. Mazurkiewicz, p. 123.

Strickland, Ruth, Guide for Teaching: English Is Our Language, Grades 1 and 2. Boston: D. C. Heath and Company, 1950.

Tanyzer, Alpert and Sandel. Beginning Reading--The Effectiveness of Different Media, sponsored by New York State Education Department. Hempstead, New York: Hofstra University 1965, 38.

Tanyzer, Alpert and Sandel. Beginning Reading--The Effectiveness of i.t.a. and T.O., N.Y.S. A-7564. Hempstead, New York: Hofstra University 1965-66, 60.