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ABSTRACT

Little is known about grammatical sophistication in the written language of school-age children. This study provides normative data on the occurrence of different complexity levels of major grammatical parameters in written compositions of nine-year-old children. These parameters include productivity of language, correctness of language usage, the frequency of occurrence of the T-unit (minimal terminable syntactic unit), extent of vocabulary diversity, and extent of expressed abstractness. Results also suggest dimensions of similarity and of difference between grammatical sophistication of oral and written language. Findings can contribute to the development of classroom instructional activities within a written language program. A list of references and a table of findings are included. (Author/JM)

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Abstract

Grammatical Sophistication in Written Compositions of Nine Year Old Children

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Little thus far is known about grammatical sophistication in the written language of school age children. The present study provides normative data on the occurrence of different complexity levels of major grammatical parameters in written compositions of nine-year-old children. Results also suggest dimensions of similarity and of difference between grammatical sophistication of oral and written language. Findings can contribute to the development of classroom instructional activities within a written language program.

GRAMMATICAL SOPHISTICATION IN WRITTEN COMPOSITIONS OF NINE YEAR OLD CHILDREN

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The purpose of the present study was to identify the frequency of occurrence in written language of various complexity levels of major grammatical parameters in order to develop a foundation for the establishment of norms for grammatical sophistication in written compositions of nine year old children, and to compare occurrence of levels of grammatical sophistication in written language with the developmental sequence in spoken language.

With recent advances in the fields of linguistics and psycholinguistics (Chomsky, 1965; McNiell, 1970; Brown, 1973; Bowerman, 1973), many parameters of written language have become the target of systematic research (Hunt, 1965; Mykelbust, 1965; O'Donnell, et al, 1967; Marshall & Quigley, 1970; Dixon, 1972 and Botal and Granowsky, 1962). These parameters include (a) productivity of language, (b) correctness of language usage, (c) the frequency of occurrence of the T-unit (minimal terminable syntactic unit), (d) extent of vocabulary diversity, and (e) extent of expressed abstractness. In a previous study, Rubin & Buium (1974) have examined the interrelationships among these written language parameters in an attempt to develop a foundation for reliable and effective measurement of significant parameters in the development of language skills in school age children.

It is recognized that the dimension of grammatical sophistication in written language has not previously received attention in the research literature on written language although it has been an area of fruitful research for those investigating the development of spoken language. Exploration of grammatical sophistication in written language has high potential for expanding our understanding of the totality of written language development. The development of normative data in this area may also provide the educator with clearer levels of expectation and with guidance for the development of remedial programs where necessary.

Procedure

Sample

Subjects were 25 nine year old children, 12 boys and 13 girls, who were randomly selected from among 1559 participants in the Educational Follow-Up Study, a longitudinal investigation of long-term educational and behavioral outcomes associated with perinatal and early childhood conditions and events (Balow, et al, 1969).

Subjects had mean IQ scores of 102 on the Stanford-Binet and 104 on the WISC with standard deviations of 21 and 12 respectively. When tested prior to entering first grade, at an average age of 72 months, these subjects obtained a mean language age score of 73 months on the Illinois Test of Psycholinguistic Abilities and a mean raw score of 56 on the Metropolitan Readiness Tests which fell at the 53rd percentile according to national norms. On the basis of their performance on these instruments the subjects in the present

study would appear to be representative of the general population in general level of intelligence, preschool language development and school readiness at age six.

Measure

The Mykelbust Picture Story Language Test was individually administered to each child by a trained examiner during the summer preceding entrance into fourth grade. On this instrument subjects are asked to write a story about a picture which is placed before them for the duration of the examination. They are given no guidance as to length, format or type of story expected of them and all questions are answered in a neutral manner. (Specific directions for test administration may be found in Development and Disorders of Written Language, Mykelbust, 1965, pp. 92-93.)

Analysis

A modified version of Lee and Canter's (1971) estimation of grammatical complexity was used. They studied eight linguistic parameters in the verbal utterances of young children. Within each grammatical parameter, specific words or syntactic structures were grouped into levels of development. Thus, Level One contains syntactical structures that emerge in the child's spoken language prior to the appearance of Level Two forms which themselves emerge prior to Level Three forms and so on. The present study investigated the frequency of occurrence of these same complexity levels in the following five grammatical categories: (a) Indefinite pronoun or noun modifers; (b) Personal pronoun; (c) Main verb; (d) Secondary verb; and (e) Conjunction.

Results

Three scorers independently scored each of the five language parameters for all 25 written compositions. Inter-scorer reliability coefficients were computed separately for each of the five parameters. Thirteen of the fifteen correlations were above .91 while the remaining two correlations were in the 70's.

Following the establishment of scoring reliability the Lee and Canter sequence of levels was then re-ordered according to the frequency of their occurrence in the written compositions (See Table 1).

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Table 1 about here

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The frequency of occurrence of varying levels of grammatical sophistication in written language does not precisely parallel the development of levels of sophistication in the spoken language repertoire of the child. The greatest discrepancies occurred on Lee and Canter's Level 3 of the Noun Modifiers; Levels 2, 4, 5, and 6 of the Personal Pronouns; Levels 1, 3, 4, and 6 of the main verbs; and Level 1 of the secondary verbs.

Despite the differences noted above there appears to exist a general correspondence between the earliest grammatical forms produced verbally by the child and the levels produced most frequently

in the written composition. However, it is important to note that although children acquire the linguistic knowledge of all levels of abstractness by age 7 (Lee and Canter, 1971), their written language demonstrates a preference for the early levels. Indeed, the levels which appear last in the child's oral language (by ages 6 or 7) were completely absent in the written compositions of the nine year old children.

Discussion

Any comparisons between oral and written language must carefully weight the dimensions on which they differ. It has been suggested by Vigotsky (1962) that in learning to write, the child proceeds through a process in which he disengages himself from the sensory aspect of speech and replaces words by images of words: symbolization of the sound image in written signs. Accordingly, the main source of difficulties in the young school age child's acquisition of written language skills is the abstract quality of the task.

It is conceivable that in the process of acquiring written language skills, the child needs to master (a) the general abstractness inherent in a second degree of the symbolization system (Vigotsky, 1962), as well as (b) the increasing levels of abstractness inherent in different complexity levels of the various grammatical categories. It is conceivable that this mastery, normally, follows a systematic progression from the least to the most complex grammatical abstractness level. Substantiation of these hypotheses could provide for enhancement of written language programs with a relatively important element of curriculum design.

Exploration of grammatical sophistication in written language has high potential for expanding our understanding of written language development and would appear basic to the design of educational programs in this area. Such knowledge can contribute to the development of specific goal oriented classroom instructional activities within a written language program.

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Table 1

Frequency of occurrence of levels of grammatical sophistication in written language

Sequence of Levels	Grammatical Forms	Freq. of Occur.	%	L. & C. Ordering*
	Parameter I Indefinite Pronouns or Noun Modifers			
1	it, this, that	29	50.0	1
2	no, some, more, all lot(s), one(s), two (etc.), other(s), another	23	39.6	2
3	both, few, many, each, several, most, least, much, next, first, last, second (etc.)	3	5.1	6
4	any, anything, anybody, anyone, every, everyone, everything, everybody	2	3.4	5
5	nothing, nobody, no one, none	1	1.7	4
6	something, somebody, someone	0	0.0	3
Total		58	100	
	Parameter II Personal Pronouns			
1	Third person: he, him, his, she, her, hers	104	76.4	2
2	Plural pronouns: we, us, our(s), they, them, their	12	8.8	3
3	1st and 2nd person: I, me, my, mine, you, your (s)	11	8.0	1
4	Wh-pronouns: who, which, whose, whom, that, what, how many, how much: I know who came. That's what I said. Wh-word + infinitive: I know what to do.	8	5.8	6
5	(his) own, one, oneself, whichever, whoever, whatever: Each had his own. Take whatever you like.	1	.7	7
6	those, these	0	0.0	4
7	Reflexive pronouns: myself, yourself, himself, herself, itself, themselves	0	0.0	5
Total		136	100	
	Parameter III Main Verbs			
1	-s and -ed: plays, played Irregular past: ate, saw Copula am, are, was, were: I am good. You're good. Auxiliary am, are, was, were: I was going. We were going.	112	63.6	3
2	Uninflected verb: I see you. Copula, is or 's: It's red.	30	17.0	1
3	is + verb + ing: He is coming.	29	16.4	2
4	could, would, should, or might + verb: might come, could be Obligatory does, did + verb Emphatic does, did + verb	3	1.7	3
5	Passive, any tense.	1	.5	7

Table 1 (cont.)

6	have been + verb + ing, had been + verb + ing, modal + have + verb + en: may have eaten, modal + be + verb + ing: could be playing Other auxiliary combinations: should have been sleeping	1	.5	8
7	can, will, may + verb: may go Obligatory do + verb: Don't go. Emphatic do + verb: I do see.	0	0.0	4
8	must, shall + verb: must come have + verb + en: I've eaten. have ('ve) got: I've got it.	0	0.0	6
Total		176	100	

Parameter IV
Secondary Verbs

1	Noncomplementing infinitives: I stopped to play. I'm afraid to look.	15	46.8	2
2	Participle, present or past: I see a boy running. I found the toy broken.	7	21.8	3
3	Early infinitival complements with differing subjects in kernels: I want you to come. Let him [to] see. Later infinitival complements: I had to go. I asked you to go. I told him to go. I tried to go. Obligatory deletions: Make it [to] go. I'd better [to] go. Infinitive with wh-word: I know what to get. I know how to do it.	6	18.7	4
4	Five early-developing infinitival complements: I wanna see (want to see). I'm gonna see (going to see). I've gotta see (got to see). Lemme [to] see (let me [to] see). Let's [to] play (let [us to] play).	2	6.2	1
5	Passive infinitival complement: I have to get dressed. I want to be pulled.	1	3.1	5
6	Gerund: Swinging is fun. I like fishing. He started laughing.	1	3.1	6
Total		32	100	

Parameter V
Conjunctions

1	and	66	76.7	1
2	so, and so, so that, if	7	8.1	4
3	but	6	6.9	2
4	because	4	4.6	3
5	where, when, while, why, how, whether (or not), for, till, until, since, before, after, unless, as, at + adjective + as, as if, like, that, than: I know where you are. I see why you want it. Don't come till I call. Go before he sees you.	2	3.0	6
6	or, except, only	1	1.1	5
Total		86	100	

*Lee and Canter ordering (oral language).