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**ABSTRACT** 

Since derivatives are more likely to occur in expository or informational prose than in fictional, literary prose, a study was conducted to test the hypothesis that systematic contextual development of vocabulary is more apt to occur in informational selections than in fictional literary ones. The teaching of prefixes and the use of prefixed words the Har the Harcourt " Brace Jovanovitch (HBJ) Bookmark Reading Program (1996) were examined because at grades 4 through 6 HBJ publishes a separate literature reader and a "skills" reader containing only nonfiction informational articles (although grade 2 through grade 3 material was also examined to establish the series' consistency). Results indicated that while many opportunities existed for systematic expansion of children's knowledge of some prefixes, the skills readers provided few or no opportunities for many others. Surprisingly, while the HBJ series contained more prefixed words than other series at grade 2, after the split, the skills reader contained fewer, not more, derivatives. Most likely the series' heavy use of narrative rather than expository informational selections produced this result. Serious thought must be given to the dominating presence of narrative structure in feading instructional material at the middle grades level; in fact, the dominance of such material may be the cause of some of the problems students have in reading and writing other kinds of prose. (JL)

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EXPLORING VOCABULARY DEVELOPMENT IN INFORMATIONAL READING SELECTIONS:
IMPLICATIONS FOR THE CONSTRUCTION OF READING INSTRUCTIONAL SERIES FOR THE MIDDLE GRADES

Sandra Stotsky

### INTRODUCTION

The research literature indicates that children's knowledge of word meanings is a major factor in reading comprehension (e.g., Davis, 1971) and that tic teaching of vocabulary is better than no system at all (Petty, Herold, & Stoll, 1968). In order to discover how comprehensively and systematically one significant category of semantic elements was taught in reading instructional material, Stotsky (1981a) surveyed the teaching of prefixes and the use of prefixed words in the pupil readers of six widely-used reading series, Grades 2-6. These six series were chosen because they ranged in terms of date of publication from the 1960's through the 1970's and thus reflected the influence of differing theoretical issues on the construction of reading instructional material during the past. decade, in particular, the value of using unadapted literary selections in preference to adapted or constructed stories. Several of these series contained a high proportion of unadapted literary selections; others contained a balance between unadapted and adapted or constructed stories. Among other findings, the data revealed that sufficient opportunities for systematic contextual development with respect to most prefixes did not exist at many grade levels in these series, whether or not the series contained mainly unadapted literary selections or a balance between adapted and unadanted ones. Since the frequent use of derivatives

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is a dominant feature of expository or informational prose rather than of fictional, literary prose (Stotsky, 1981b; Stotsky, forthcoming), Stotsky suggested that systematic contextual development of this component of our vocabulary might be more apt to occur in informational selections than in fictional, literary selections, whether adapted or not. The purpose of the research reported in this paper was to seek support for this hypothesis.

#### PROCEDURES '

In order to make a comparison with the data collected in the previous study, this study examined the teaching of prefixes and the use of prefixed words in the "skills" readers of the HBJ Bookmark Reading Program (1979), because at Grades 4-6 it publishes a senarate literature reader and a "skills" reader containing only "nonfiction informational articles...to help students learn to read to learn." The skills readers in Grades 4-6 are of about the same length as the pupil readers in the other series.

The procedures followed in this study were identical to those used in the previous study. The definition of the term "prefix" that was used was based on Marchand's (1969) definition: prefixes are "bound morphemes which are preposed to free morphemes" (p. 129). All the reading material in the pupil readers for Grades 2 and 3 as well as in the skills readers for Grades 4-6 was read word by word to ensure that all exemplars of prefixes taught in Grades 2 and 3 would be included — in the tables constructed for Grades 4-6. For each grade level, a table was constructed containing all exemplars of prefixes taught at that grade level and at previous grade levels. The tables indicated only the appearance of a prefixed word (including any of its derivatives), not frequency, since the focus of this study, as was the previous one, was on opportunities for expansion of word knowledge through transfer of meaning to similarly prefixed words. The data in the tables were drawn only from the reading material in the skills readers



that required either meaningul reading or writing of prefixed (words; this criterion excluded words listed for purposes of alphabetizing, stress placement, syllabication, etc.

#### FINDINGS

Table 1 indicates the total number of different exemplars for each prefix at each grade level once it is introduced or mentioned in the teachers' guides or in the skills readers. The numeral zero indicates that no exemplars were found at that grade level even though the prefix was introduced or mentioned at that level or at an earlier one. While there appear to be many opportunities for systematic expansion of children's knowledge of words with respect to some prefixes in the skills readers, there are few or no exemplars for many others at varying grade levels. Thus, it is not clear that sufficient opportunities for systematic vocabulary development at least with respect to prefixed words exist in informational writing, if one may generalize from these findings. The more important question, however, was how these findings compared with those from the original study.

# Insert Tables 1 and 2 about here

Fable 2 indicates the total number of different prefixed words appearing by grade level in the skills readers in the HBJ series for Grades 4-6 and contains exactly comparable information from the readers in the other series. The findings from Grade 3 from all series are included to show that before the HBJ Reading Series separates into a literature reader and a skills reader it contains even more prefixed words than the other series. The comparison was startling. Instead of a larger number (or even the same number) of different prefixed words in the HBJ skills readers in comparison to the other series, the data revealed



a much smaller number at Grades 5 and 6 and a comparable number at Grade 4 with respect to only two other series. At this point, it could not be concluded that informational selections necessarily provide greater opportunities for expanding vocabulary systematically, at least with respect to prefixed words, than do fictional, literary selections. However, the fact that derivationally affixed words are a far more striking feature of adult expository or informational texts rather than of adult literary works prompted a search for reasons that could account for the differences that were found between the HBJ skills readers and the readers from the other series.

readers, thus reducing the number of prefixed words that would have been entered into the tables? Altogether 15 prefixes are taught in the skills readers in Grades 2-6. The number of prefixes taught in the other series ranges from 14 in the Ginn 360 series to 27 in the Holt series; therefore, the number taught in the skills readers is not less than the number taught in at least one of the other series. Moreover, the most common prefixes (e.g., dîs-, re-, un) are taught in all series and account for most exemplars, while the less common prefixes taught in the elementary grades (e.g., co-, intra-), which may not be taught in all series, account for only a few exemplars in the series in which they are taught. Thus, it did not appear that the differences in the number of prefixed words used in the HBJ skills readers and in the other series could be accounted for by a difference in the number of prefixes taught.

Second, was there something about the nature of the informational selection the skills readers tions that could account for this disparity? An examination of all the informational selections at Grades 4, 5, and 6 revealed that the phrase "nonfiction informational" covers widely varying types of factual writing, ranging from, in Grade 6 for example, a narrative account of the discovery of the paintings in the Altamira cave in Spain, an expository description of natural and man-made towers (p. 110), and a biography of the dancer Jose Limon (p. 136), to a true

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story about an adventure in the desert (p. 289) and a newspaper account of a butterfly hunt (p. 369). Similar types were found in the readers for Grades 4 and 5. Despite the fact that these are all somewhat different types of informational writing, most of them are primarily narrative in structure, and these types accounted for the bulk of the informational selections at all grade levels. Less than half of the selections at each grade level could be judged non-narrative or essay-like in structure and style.

Could the story-like nature of most of the informational selections in the skills readers account for the smaller number of prefixed words in them? Was it possible that the vocabulary of narrative informational writing might be less structurally and semantically complex than the vocabulary of either narrative literary writing or expository informational writing? Studies of style suggest some answers to these questions. In a discussion of the textual differences between nominal (or expository) style and verbal (or narrative) style, Wells (1970) suggests that nominal style typically results in the use of longer words, more complex words, and a higher proportion of abstract nouns than does a verbal style as derivationally affixed words are by definition complex and longer than their base words, one might therefore expect to find more derivatives in expository informational writing than in narrative informational writing. And in a discussion of the differences between what he terms the "informative style" and the "literary style," Baucom (1978) states:

Moreover, frequent repetition of key words, and of words associated with these words, is also a feature of informational writing (Stotsky, forthcoming). Thus, one might also expect to find both a simpler and a less diverse vocabulary in



<sup>...</sup>the informative style usually makes use of words of very high frequency with the addition of infrequent specialized or scientific words. The literary style tends to make use of words which are less frequent and which are not technological in nature (p. 83).

narrative informational writing than in either expository informational writing or unadapted literary works.

IMPLICATIONS AND CONCLUSTON

If the smaller number of prefixed words in the HBJ skills readers is indicative of a simpler and a less diverse vocabulary in narrative informational writing in comparison to either literary or expository writing, /that in itself may be one reason for questioning the heavy use of narrative informational selections for teaching children how to read informational writing. But there are perhaps more powerful reasons. In true stories, biographies, or even expository narratives (e.g., explanations of how to make something), the order of material is chiefly chronological, whereas in expository informational writing, other kinds of logical order tend to govern the sequence of ideas and facts. Moreover, expository style entails significant differences in discourse structure at the sentence level as well as at the level of the whole text. For example, Boder (1940) found a far higher number of attributive adjectives per verb in scientific writing than in fiction. Earber (1962) notes in his research on modern scientific prose the frequent use of the passive voice. Wells (1970) suggests that "nominal" sentences are apt to contain fewer clauses per sentence than "verbal" sentences because "nominalization replaces conjunctions by prepositions." resulting in greater density within a clause. Kinneavy (1980), in a discussion of reference discourse, also points out such features of scientific style as the use of the passive voice, the presence of multiple modifiers, and the avoidance of first person pronouns. Thus, differences between narrative informational writing and literary or expository writing occur at the level of both vocabulary and sentence and text structure and strongly suggest a need to evaluate the heavy use of narrative informational selections for teaching children how to read informational writing.

It must be emphasized at this point that the use of narrative informational selections for instruction in reading informational writing is not confined to Grades 4, 5, and 6 in the HBJ skills readers or even to the HBJ reading series



alone. Many of the informational selections in the HBJ skills readers for

Grades 7 and 8 are also narrative in structure; so, too, are many of the informational selections in the pupil readers for Grades 4-8 in/other reading series and

(e.g., see the most/reading programs published by Ginn and Co. / Houghton Mifflin

Co.).

This means of course, that an extremely large proportion of all selections in these other series is narrative in structure since most of the selections in their readers are literary in nature to begin with.

Serious thought must be given to the dominating presence of narrative structure in reading instructional material at the middle school level, even when some of these selections are designed to provide information. Most of the writing that students need to read at all educational levels is expository in nature; so is most of what they need to read as adults (e.g., civic documents, newspaper editorials, business memos or reports). If one of the major purposes of reading instruction is to help students learn how to read the kind of reading materials they need to read for further learning and for informed citizenship, then most current developmental reading programs may not be giving students enough exposure to a wide range of expository vocabulary or enough opportunities to learn how to grasp the structure of writing in which ideas and facts follow each other in a logical rather than a chronological sequence.

It is possible that the difficulty many students in the middle grades have in reading their science, mathematics, language arts, and social studies texts reflects, in part, the possibility that in their reading classes they are being taught primarily how to read narrative writing rather than pieces of expository writing that are similar in structure and style to the reading material in their academic subjects. Further, some of the difficulty students have in learning how to write essays in their language arts or composition classes throughout the upper elementary and secondary grades may also reflect the possibility that



they have been infrequently exposed to models of short, complete, and well-written essays similar in quality to the literature in their developmental reading programs. Educators and publishers need to discuss what kind of writing middle grade students should be taught to read in developmental reading programs, even if what they should be taught to read is not what these students choose to read according to librarians' surveys. The question of whether of not expository writing provides for more systematic contextual development of vocabulary than does literary writing may be far less important than the differences we know exist between expository and narrative writing. A balance between narrative and expository writing in developmental reading programs may be just as important for students' growth in reading (and writing) as a balance between fictional and nonfictional writing.

NUMBER OF DIFFERENT EXEMPLARS OF EACH PREFIX

IN THE HBJ READERS FOR GRADES 2 and 3 AND SKILLS READERS FOR GRADES 4-6

AFTER THE PREFIX IS INTRODUCED OR MENTIONED FOR TEACHING

| Grade | 2   | · 3 | 4   | 5. '  | 6   | Grade  | 2          | 3  | 4   | 5                | 6        |
|-------|-----|-----|-----|-------|-----|--------|------------|----|-----|------------------|----------|
| anti- |     |     | 0   | 0"    | . 1 | post-  |            |    |     | 771              | , 0      |
| de-   | • • | •   | 1   | , · 1 | 0   | pre-'  |            | ı  | 3   | · <sub>2</sub> • | 2        |
| dis-, | 1   | 4   | . 1 | 4     | 5   | re-    | <u>,</u> 1 | 2  | 7   | 8                | _<br>_13 |
| en-   |     | 3   | 3   | ٠ 4   | 4   | semi-, | •          |    | •   | <u>~</u>         | 2        |
| im-   |     | 2   | · 2 | 1     | 2   | sub-   |            |    | 1 ` | 1                | 4        |
| in-   |     | " 1 | `1  | 4     | . 7 | super- |            |    |     | _                | 3        |
| mis-  |     | 3   | 2 - | 1     | 0   | un-    | 5          | 18 | 15  | 22               | 25       |
| non-  |     |     | 0   | 2     | 1 ` |        |            |    | ,   | F F              | ~)       |

Table 2

TOTAL NUMBER OF DIFFERENT EXEMPLARS OF ALL PREFIXES

IN THE READERS FOR GRADES 3-6 IN SEVEN READING SERIES
AFTER A PREFIX IS FIRST INTRODUCED OR MENTIONED FOR TEACHING\*

| <del></del> |       | •   |       |     |      |                  |          |  |
|-------------|-------|-----|-------|-----|------|------------------|----------|--|
| Series      | A & B | M   | G 360 | S-F | Н    | G 720            | HB3.     |  |
| Grade 3     | 17    | 24  | . 9   | 13  | 15   | 20               | <u> </u> |  |
| Grade 4     | . 37  | 66  | . 66  | 37  | . 72 | 49               | ´ 36     |  |
| Grade 5     | 89    | 148 | 99    | 104 | 89   | 2107             | - 50     |  |
| Grade 6     | 106   | 196 | 137   | 141 | 156  | <sup>,</sup> 159 | . 69     |  |

<sup>\* (1)</sup> Allyn & Bacon Basic Reading Series (1968)



<sup>(2)</sup> Macmillan Reading Program, Revised Edition (1970)

<sup>(3)</sup> Ginn 360 Reading Series (1970)

<sup>(4)</sup> Scott Foresman Reading Systems (1971-1972)

<sup>(5)</sup> Holt Basic Reading System (1973)

<sup>(6)</sup> Ginn 720 Reading Series (1976)

<sup>(7)</sup> HBJ Bookmark Reading Program Skills Readers (1979)

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