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COMPREHENSION AND RATE: ORAL VS. SILENT READING FOR LOW ACHIEVERS

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The benefits of oral vs. silent reading instruction has been a focal point of controversy for professionals in the field of reading for several years (Heilman, Blair, and Rupley, 1981; Tinker and McCullough, 1978).

Although at the present time there seems to be an appreciation of the value of both approaches (Heilman, et al, 1981), many professionals still tend to accept the superior role of silent reading almost to the exclusion of oral reading (Tinker and McCullough, 1975).

However, it appears that the dichotomous nature of the oral vs. silent reading controversy may be somewhat oversimplified in light of the recommendation of Heilman, et al (1981). They point out that the focus should not be solely on silent reading instruction but teachers should see to identify possible ways of increasing the efficacy of oral reading instruction for the learner; thus, emphasis should be placed on the middle ground or a balance in the treatment of oral and silent reading instruction.

The potential efficacy of oral reading can be realized when two essential factors of reading are considered; i.e., rate and level of comprehension. Since the primary focus of instruction is to improve not only the comprehension level but also the rate of reading (Tinker and McCullough, 1978), it is important that these two factors be continually weighed in the instructional process to achieve the optimum balance of emphasis. For example, if a choice is to be made between an increase in reading rate or an increase in level of comprehension, most authorities would tend to weigh comprehension as the critical factor in the reading process (Ausubel, 1968; Tinker and McCullough, 1978; Dechant, 1970; Lamb and Arnold, 1980). Therefore, the instructional approach to reading instruction for any particular child should continually assess the need for efficiency, i.e., rate of reading with its corresponding impact on the level of comprehension of the learner. Increases in rate of reading with reductions in levels of comprehension appear to be counterproductive.

This investigator sought to examine the influence of oral and silent reading behavior on the reading rate and comprehension levels of the learner. Two questions were posed for investigation:

1. Do low achieving fourth graders read significantly more rapidly silently or orally?
2. Do low achieving fourth graders comprehend materials significantly better after having read orally or after having read silently?

Method

Sample

The subjects for this study were 18 fourth grade students from a public elementary school in Eastern Arkansas (12 boys and 6 girls). The subjects were selected for the study on the basis of their scores (i.e., below the 50th percentile) on the Total Reading subtest of the SRA Achievement Test (Maslund, Thorpe, and Lefever, 1978). The mean scores for grade equivalent and percentile rank of the subjects were 2.9 and 34 respectively.

Procedure

Each subject was administered six subtests of the Analytical Reading Inventory (ARI) (Woods and Moe, 1981). Three of these subtests (Form A, levels 2, 3, and 4) assessed the students' oral reading rates and comprehension, whereas, the other three subtests (Form B, levels 2, 3, and 4) measured the students' silent reading rates and comprehension. Each of the three levels of Form A and B were selected to correspond with the subjects' independent reading level (level 2), approximate instructional reading level (level 3), and expected grade level (level 4).

The administration of the six subtests of the ARI followed the publisher's instructions with the exception that step one (i.e., sight word list) was not administered since it was of no interest to the present investigation.

The actual testing consisted of having each subject reading separately each of the six subtests in the following order: Levels 2, 3, and 4 of Form A (orally), and Levels 2, 3, and 4 of Form B (silently). Upon completion of each subtest the subject was asked a series of questions that assessed level of comprehension of that specific subtest.

Data on student performances were collected on their reading rates (i.e., words per minute) and the comprehension levels (i.e., percentage of correct responses for both oral and silent reading subtests).

Results

Data were analyzed using a T-Test for paired samples (Nie, Hull, Jenkins, Steinbrenner and Bent, 1975). An alpha value was set at $p < .05$.

The mean scores and comparisons for oral and silent reading rates for each of the three levels of difficulty are reported on the following page, Table 1.

The comparison of the subjects' oral reading rates with their silent reading rates yielded a significant difference on level three, i.e., the students' approximate instructional level in favor of the silent reading rate (\bar{X} oral = 86.9 WPM, \bar{X} silent

= 102.6 WPM, $t_{17} = 2.69$, $p < .02$). No differences were observed in rates between oral and silent reading on the expected grade level (Level 4 of the ARI) or the independent reading level (Level 2 of the ARI).

Table 1
Rates for Oral and Silent Reading
Compared on Three Difficulty Levels

Levels of Difficulty	N	Oral Rate WPM	Silent Rate WPM	df	T	2-Tail Prob.
Second Grade	18	93.4	103.1	17	1.86	.08
Third Grade	18	86.9	102.6	17	2.69	.016*
Fourth Grade	18	90.5	97.7	17	0.72	.484

* Significant at $p < .05$ level

The mean scores for oral reading comprehension are compared with the mean scores for silent reading comprehension for each of the three levels of difficulty and are reported in Table 2.

Table 2
Comprehension for Oral Reading
and Silent Reading
Compared on Three Difficulty Levels

Levels of Difficulty	N	Oral Comprehension	Silent Comprehension	df	T	2-Tail Prob.
Second Grade	18	73.1	67.3	17	1.00	.333
Third Grade	18	77.3	55.0	17	4.63	.000*
Fourth Grade	18	70.4	37.0	17	6.90	.000*

*Highly significant difference beyond $p < .0001$

Assessment of subjects' comprehension on each of the three levels of reading indicated that the level of comprehension was significantly higher for oral reading than silent reading. These differences surfaced on level three, i.e. approximate instructional reading level (\bar{X} oral comprehension = 77.3 and \bar{X} silent comprehension = 55.0, $t_{17} = 4.36$, $p = .0001$) and level four, i.e. expected grade level (\bar{X} oral comprehension = 70.4, and \bar{X} silent comprehension = 37, $t_{17} = 6.90$, $p < .0001$).

Conclusions and Discussion

The literature indicates that if a student is making reasonably normal progress in reading achievement, silent reading rates will exceed oral reading rates by the time the student finishes

the second grade or has entered third grade (Tinker and McCullough, 1975; Spache, 1981). However, in this study only on the third grade level were the differences between silent reading rates and oral reading rates statistically significant.

It is interesting to note that the significant differences which existed between oral and silent reading rates occurred on the level that was read orally at the slowest rate, and that this level corresponded to the students' approximate instructional level for reading rather than the most difficult level, or expected grade level. One would have expected the rates to parallel the readability levels, or the difficulty levels of words and concepts (Heilman, 1977, pp. 489-490). One can only speculate why oral reading rate was slower at this level than at the other levels. It might have been a matter of interest. Comprehension on this level was 77%, somewhat better than comprehension on levels 2 and 4. Did these subjects comprehend better because they read more slowly, or did they read more slowly because they were comprehending more?

The rates at which the subjects read silently paralleled the levels of difficulty or the readability levels of the test materials. That is, the students slowed the pace of reading slightly as the materials increased in difficulty. However, slowing the pace for the increased difficulty levels did not prevent significant decreases in comprehension as difficulty levels increased. This, perhaps, points to a need for earlier emphasis or increased emphasis on teaching learners flexibility of rates relative to reading purposes and material difficulty (Davis, 1979). These subjects appeared relatively inflexible in rate and continued to read at approximately the same rates regardless of the difficulty level of the materials. This supports Harris' (1968) findings that most readers are rigid rather than flexible in terms of reading rate.

Oral reading comprehension was better than silent reading comprehension on levels 3 and 4. This fails to support Spache's (1981) conclusions following a review of the literature comparing oral with silent reading that "many authorities agree that oral reading, unlike silent, is not conducive to comprehension" (p. 131). In fact, one might conclude from this study just the opposite, that silent reading is not conducive to comprehension for low achievers.

Oral comprehension scores were relatively stable across the three levels of reading difficulty with subjects comprehending the third grade materials best, and the fourth grade materials poorest. However, with silent reading comprehension, the scores descended in a parallel fashion as the difficulty levels of the subtests increased. This may indicate that readability levels for oral reading may be the function of some factors other than those normally considered for silent reading.

As noted earlier, subjects were selected for this study on the basis of performance on the SRA Achievement Test. Although the SRA test scores identified an average grade equivalent level of 2.9 in reading for these subjects, it should be pointed out

that the average silent comprehension scores failed to reach a criterion of 75% for any level of test difficulty. If 75 percent comprehension for silent reading were accepted as the criterion for instructional reading level (Bond, Tinker, and Wasson, 1979), the average instructional level for these learners for silent reading comprehension was at some point below second grade. If SRA scores were used as the basis for placement in reading levels, silent reading instruction would be considerably higher than the level at which these students can function.

One possibility which may account for the significant differences between oral and silent reading comprehension is that students have more experiences with oral language than with silent reading, considering the developmental nature of language as described by Stoodt (1981). This may be a factor, but the credibility of this as a major causal factor is questioned. It is true that these students spent a number of years listening and speaking before learning to read, but the basal reading series which was employed with these children started instructional emphasis in silent reading in first grade, immediately after the children mastered minimal oral reading skills. Therefore, these subjects have had more experiences with oral language than with silent reading, but they have had considerably more instructional attention given to silent reading than to oral reading.

Another possible causal factor which may explain the significant differences between oral comprehension and silent comprehension is a matter of accountability. When students read materials aloud, they know that the teacher is able to determine whether or not they have read. This is not the case with silent reading. The students who do not read extremely well and who do not approach reading with unabashed enthusiasm may simply bow their heads for an appropriate period of time and appear to read silently. Of course they don't comprehend well—they haven't read. Questions which aren't materials dependent are answered from background experiences, giving an impression of some comprehension. This also may account for the differences in speed between oral and silent reading and may account in part for the differences in eye movements reported by Spache (1981).

Still another factor and one supported by learning theorists (Adams, 1976), which may account for the differences between oral reading comprehension and silent reading comprehension is that during oral reading the students are engaged both visually and auditorily. Perhaps, hearing their own voices read the materials reinforced the learning, thus improving comprehension. Reading orally likely enabled the students to concentrate more on the task at hand which resulted in improved comprehension.

Instructional Implications

It may be that the emphasis in reading instruction is out of balance for some learners, particularly low achievers. If, indeed, comprehension and not speed is the desired outcome for reading, as most reading authorities attest, then another look should be taken at the roles of oral and silent reading. Presently,

oral reading is advocated as a method for teachers to determine if the students are able to apply various word perception techniques, and, as a method to communicate or interpret information to an audience (Stoodt, 1981, p. 262). This study indicated a need to consider oral reading in the additional role as a comprehension strategy. Rather than see silent reading as superior to oral reading as a comprehension technique, teachers of reading should learn when and how student can best employ oral reading for comprehension.

It was concluded that purposeful oral reading should be given additional emphasis in time allocation in elementary grades. The purposes for oral reading should continue to be for diagnosis of word perception skills and oral interpretation, but also should be expanded to include purposes of comprehension. Low achievers, especially, should be taught to reinforce comprehension by reading materials orally.

No cutoff for the superiority of oral comprehension over silent comprehension was indicated by this study. It may be, at least for low achievers, that the present shift from oral to silent reading in first grade is too early.

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