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ABSTRACT

Effects of a speed reading course on ninth-grade girls were studied at intervals of 3 and 6 months after completion of the course. The Perceptive Reading and Study Skills Course was administered to 94 students, and progress was evaluated using the Nelson-Denny Reading Tests. Results indicated that significant improvements in speed and comprehension did come about and that these skills persisted over periods of 3 and 6 months. Reading speed was found to be somewhat independent of reading comprehension, and initial skills and IQ were found to be unrelated to the amount of improvement in those skills. The amount of outside reading done by students had somewhat equivocal correlates: practice reading did seem to be related to improved speed, but it was not related to comprehension, and it was also unrelated to the amount of gain in speed or comprehension resulting from the sourse. Tables and references are included. (Author/MS)



Effects and Correlates of a Course in Speed Reading

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EFFECTS AND CORRELATES OF A COURSE IN SPEED READING (abstract)

This study was undertaken to determine the effects of a speed reading course on minth grade girls and to examine the relationships of several variables associated with the students and with the course. The Perceptive Reading and Study Skills Course was administered to 94 students, and progress was evaluated using the Nelson-Denny Reading Tests. Results indicated that significant improvements in speed and comprehension did come about and that these skills persisted over periods of three and six months. Reading speed was found to be somewhat independent of reading comprehension, and initial skills and IQ were found to be unrelated to the amount of improvement in those skills. The amount of outside reading done by students had somewhat equivocal correlates. practice reading did seem to be related to improved speed, but it was not related to comprehension, and it was also unrelated to the amount of gain in speed or comprehension resulting from the course.



EFFECTS AND CORRELATES OF A COURSE IN SPEED READING

Much research has been done on speed reading. For example, in 1968 the <u>Journal of Reading</u> published a bibliography, "Ten Important Sources of Information on Speed Reading" (Berger, 1968), listing the most significant studies in the field at that time.

Physiologically-oriented research indicates that the more visual persons are slightly more rapid readers than more auditory persons (Quantz, 1897), that myopic students tend to gain more from a speed reading course (Adams, 1968), and that a ceiling is placed on speed reading by the inability of the eye to take in more than 900 words per minute, thus reducing "reading" at higher rates to skimming (Spache, 1962).

Researchers who have applied speed reading courses to specific improvement objectives have found that reading courses both improve SAT scores (Palione, 1961) and have no effect on them (Coffman and Parry, 1967). The apparent contradiction can perhaps be attributed to divergent motives for succeeding on the test.

Other research (Stevens and Orem, 1963) has suggested that the superior reader enters the course with a more rapid reading rate, is an average or above average student, and likes to read. A "do-it-yourself" article (Rauch and Weinstein, 1968) stresses "read, read" as the best method for gaining speed, as does Combs (1966). However, the National Association of Secondary School Principals (1965) has warned that speed and comprehension



do not necessarily go hand-in-hand, a finding challenged by earlier research (O'Brien, 1921), which showed a positive relationship between speed and comprehension. A study of Air Force personnel (Brim, 1968) suggests that comprehension remains fairly constant as speed increases. Ray (1962) summarized 19 representative studies since 1945 and found that most of these reported gains in rate of reading. Fewer than half the studies showed gains in both speed and comprehension.

Ray and Belden (1965) have reported on a program calling for 30 hours of class work which produced significant gains in both speed and comprehension. Staton (1950), Beasley (1959), and Siegel (1962) have also reported significant gains in reading skills after speed reading courses. Retesting in these studies varied between 3 and 6 months. Stebens and Belden (1970) report significant gains in reading skills, except comprehension, five semesters after a college speed reading course.

The studies mentioned have focused on college and adult responses to speed reading programs. Holmes and Singer (1966) have reported on a high correlation between reading speed and power among high school students and have presented a detailed correlational analysis of all the variables involved in their study. The present study was undertaken to test the effect of a speed reading course on ninth grade girls, replicating to some extent on the high school level studies reviewed above (Ray and Belden, 1965; Stebens and Belden, 1970). There were three major hypotheses: (1) that there would be a significant



improvement in speed and comprehension as a result of the speed reading course; (2) that these gains would endure over a period of time; and (3) that gains in speed would be related to such variables as initial speed, initial and final comprehension, IQ, time of the year the course was taken (first or second quarter), and number of books read.

Subjects and Procedures:

The subjects were 94 ninth grade students at a Catholic high school for girls in a largely middle class section of a large midwestern city. All were members of "B" (average) or "C" (above average) classes. Placement in the classes was based on grade-school grades, high school entrance test results, and IQ scores. Average IQ was 116. All students took a 30-lesson programmed-learning television course in speed reading prepared and taught by the Visual Concepts Company (1969). Six television lessons on study skills followed the speed reading program. The television lessons lasted from 28 to 30 minutes and were given five days a week. They were supplemented by approximately one-half hour of practice each day with a reading drill directed by a record provided by the Visual Concepts program.

The Nelson-Denny Reading Test A was verified as an accurate and valid tool of retesting in a personal communication from Dr. James I. Brown (1971), reviser of the Nelson-Denny Test, and was similarly used by Stebens and Belden (1970).



It was administered to a "B" class (N=26) and "C" class (N=19) who began the course in September, 1970, and to a "B" class (N=28) and a "C" class (N=21) who began the course in November. All classes took the Nelson-Denny Reading Test B at the completion of the course. Retesting was done with the Nelson-Denny A Test on April 16, 1971, approximately six months after the first group had completed the course and three months after the second group had finished it, similar to the time intervals used by Ray and Belden (1968). Retesting considered only speed and comprehension, not vocabulary, since there was greater chance of contamination from previous testing with regard to vocabulary. In addition to the test, students were asked to estimate the number of books they had read in the three months after the end of the course.

The results were analyzed using a standard computing program, the MIAMI factor analysis (Dixon, 1968), to obtain correlations; and t-tests for correlated data were performed to test the differences between means. Guilford's tables (1964) were used to interpret the results.

Results and Discussion:

Table 1 reflects significant improvements in both speed and comprehension subsequent to the speed reading course. These differences are significant in a practical as well as a statistical sense, as is shown by Figure 1. Results of the study also substantiate the hypothesis that the gain made in reading skills would remain over a period of time (Table 2). Although speed leveled off after the end of the course, there was still a



substantial improvement over the initial speed. The increased rate of comprehension even after the course was over (figure 2) would seem to indicate that reading skills learned during the course continued to develop even after it was over. However, the fact that speed went down slightly while comprehension continued upward after the end of the course would seem to indicate that improvement in speed and comprehension are unrelated. This lack of relationship is further corroborated by the low correlations between comprehension and speed improvements in Table 3.

Table 3 presents the correlations used to test the various parts of the third hypothesis. The hypothesis that amount of reading was related to increases in speed and comprehension was not supported. Although amount of reading as reported by the students was related to initial speed and to final speed, there was no relation between improvement in comprehension or speed and amount of reading. (It should be pointed out, however, that the number of books read was acquired from student estimates and might be subject to some inaccuracy.)

Table 3 also indicates that IQ is related to comprehension on each testing occasion, but it is not related to speed or to improvements in speed or comprehension. Initial speed is positively related to initial comprehension, to comprehension

Insert Table 3 about here.

at the end of the course, and to final speed, but is unrelated to the improvement factors (variables 10 to 13). Initial comprehension is negatively related to improvement in comprehension (probably a ceiling effect), but is not at all related to fluctuations in speed.

Although the number of books read in the three months after the course was not related to the amount of gain in reading speed or in comprehension, this variable was related both to initial speed and to speed on the retest. Thus it would seem that reading practice could be regarded as a "natural" way to improve reading speed. The beneficial effects of such natural practice can also be seen in the significant correlation between the quarter of the school year when the student took the course and his speed on the initial test. This would seem to indicate that students who had a quarter of the school year during which to practice their reading skills benefited from this practice in the form of a gain in speed. It is quite possible that this good result may occur only at the beginning of the school year, when the practice might help overcome the detrimental effects on speed which might have accompanied the summer vacation. is noteworthy that these beneficial "natural" effects do not occur with regard to comprehension.

Conclusions and Summary:

The present data confirms on a sample of high school girls the findings of previous researchers that significant



gains in speed and comprehension can be brought about and retained over a period of time. In the present study, both speed and comprehension increased significantly, although these gains were <u>not</u> correlated. Thus Brim's (1966) findings that comprehension remains constant are not supported, while the warning of the National Association of Secondary School Principals (1965) that improvements in speed and comprehension may be unrelated would seem to be supported.

The student who entered the course with a higher reading speed was also likely to have a higher comprehension score at the beginning of the course and to score higher on the speed retest; but the initial speed was not related to the amount of gain in either speed or comprehension. Similarly, reading a large number of books is positively related to initial and final speed, but not to comprehension or to any of the gain scores. Likewise, being a good student as reflected in class groupings and IQ is related to initial and terminal comprehension, but not to any of the gain scores. Thus the current study would seem to support the findings of Stevens and Orem (1963) that the superior reader enters the course with a higher reading speed, is a better student; and likes to read. But at the same time there is evidence that their findings should not be misinterpreted or overemphasized, since there is no evidence that the student described by Stevens and Orem is either more or less likely to



profit from such a course.

Similarly, the "read, read" theory of Rauch and Weinstein (1968) and Combs (1966) is somewhat supported, since practicing reading in itself has been shown to be somewhat related to reading speed. However, the amount of reading has been shown to be unrelated to any of the gain scores, and thus it cannot be viewed as a total solution. It would seem that while some gains can come about through mere practice, a specialized program brings about much greater gains for students who might otherwise remain untouched. It would seem highly unlikely that the gains in Figure 1 would occur in a program consisting merely of individual practice.

In summary, then, it would seem from the present study that speed and comprehension are relatively independent variables. It also seems evident that a speed reading program such as the one used in this study can provide rather widespread and practical benefits. The evidence would seem to indicate, for example, that students on the average can read a book twice as rapidly as previously with a gain rather than a loss in comprehension. This in itself would seem to be worthwhile. In addition, it seems evident that theories such as those advocating working mainly with only the better students or only the slower students with regard to speed reading programs are inaccurate, since neither of these groups showed extreme benefit or lack of benefit from this program.

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Figure 1.	Mean Reading on Retest.	Rates	at :	Beginning	and	End	of	Course	and
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