

IMPROVING READING SPEED IN READERS OF ENGLISH AS A SECOND LANGUAGE

Wesley Richard
Hokusei College, Sapporo

ABSTRACT

Sixty-two students from two sections of Freshman English at a liberal arts college in northern Japan were pretested, trained, and post-tested in an experiment employing two methods to improve reading speed: traditional paper exercises and a reading machine (projector). Scores for the experimental group increased significantly more ($p < .05$) than for the control group. Student reactions are also reported.

One of the problems common to students of English as a foreign or second language is that of the need to increase their reading speed. The habit of concentrating on individual words and expressions in order to grasp their meaning has kept many students from improving their overall ability to assimilate sentences at a rapid pace. They may have, so to speak, "missed the forest for the trees".

Exercises for increasing reading speed have typically consisted of short, timed reading selections followed by a series of questions regarding their content. The allotted reading time is reduced progressively to encourage faster reading. According to some reports, such exercises in the second language can even have beneficial effects in the native language (Bright and McGregor, 1970 p. 96). However, depending upon the maturity of the student, such exercises may do nothing more than to increase tension and thus do little to help the student pace his or her reading in a systematic manner.

For some years, reading machines have been used in American high schools and colleges for remedial reading as well as to increase reading speed for normal readers. These machines project one line of script on a screen at timed intervals using 35mm film strips. The intervals can be shortened or lengthened by turning a dial to the desired speed. If such machines can be used with positive results for readers in their native language, might they not also be effective for readers of English as a second language? It was with the intention of testing this assumption that the experiment described here was conducted.

METHOD

Students from two sections of Freshman English at a liberal arts college in northern Japan were presented, trained, and post-trained as described below. Sections are formed upon entrance to the college by dividing registrants alphabetically; about 50 in each section. Students who missed more than one session were not included in the data for this experiment. All materials used were taken from Tiersch-Allen, "Classics in Therapeutic Readability for Contained Reading", 1979. A schedule for their use was set up and followed as indicated in Table 1. All reading selections were approximately 150 lines in length.

Pretest

To acquaint the students with the materials and procedure, both sections were given a mimeographed chapter (approximately 150 lines) from Stephen Crane's *The Red Badge of Courage* (Tiersch-Allen, ed.) and a test sheet. At a signal from the instructor they studied the story page for 10 minutes at which time they were told to stop and turn their papers over. Then they completed the test during the next 6 minutes. The tests throughout the experiment consisted of 10 multiple choice questions (4 choices each). Students were not permitted to refer to the story while taking the test.

One week later, each section was given eight minutes to read a second chapter and five minutes to complete the test. Immediately following, they were given three minutes to read a third chapter and three minutes to complete the test. This exercise was used to determine the "speed of potential" (Pugh, 177). The results of this test were later used as the base scores for the experiment.

Training

From this point on, the two groups received different treatment over a period of six weeks. The experimental group was exposed to increased reading speeds through the use of the projector. Using a 500 watt A/V Concepts projector with variable speed control, the instructor projected filmstrips on to a large screen. Only one line was visible at one time. Chapter One of the story (*The Time Machine*) was projected at 14 lines per minute (75 wpm) and increased weekly until 40 lines per minute (220 wpm) were projected in the last session. Following each chapter, students were asked to complete the multiple-choice test paper which they had received just prior to seeing the film. The times for the tests were reduced gradually from 4 minutes to 2 minutes-forty seconds.

The control group utilized the same materials in mimeographed form. The time limits were calculated from the lines-per-minute figure used for the projector. Test times were the same as for the experimental group.

Both groups were informed periodically of the progress they were making in terms of lines-per-minute, but were not told that they were participating in an experiment.

Post-test

Following completion of the last chapter of *The Time Machine*, both sections were given a final reading exercise from *The Red Badge of Courage*, in mimeographed form. The time limit for this last exercise was three minutes for reading and two minutes forty seconds for the test. These scores were used for comparison with the pretest scores.

Table 1. Testing/Training Schedule*

| Pretest | | | Training | | | | | | | | | | Post-test |
|-------------------|----|-----|----------|---------|-------|---------|-----|--|--|--|--|--|-----------|
| | 1 | 2 3 | 1 2 3 | 4 5 | 6 7 | 8 9 | 10 | | | | | | 4 |
| Reading (minutes) | 10 | 8 3 | 9 8 7 | 5 6 | 5 4.5 | 4.3 3.8 | 3.8 | | | | | | 3 |
| Testing (minutes) | 6 | 5 3 | 4 4 | 3.5 3 3 | 3 3 | 2.8 2.8 | 2.8 | | | | | | 2.8 |
| Session Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | 8 |

*Reading selections were approximately 150 lines in length.

RESULTS

Thirty-one students from each group were matched on the basis of their pretest scores. These scores were then compared with the score achieved on the post-test. In the pretest, scores ranged from 0 to 8 (mean 3.48). In the post-test, scores ranged from 2 to 7 for the control group and 3 to 9 for the experimental group. See Table 2. Interestingly, the standard deviation for both groups was the same for the post-test even though the means were different.

The t-test for related measures was used to test for differences between the 2 groups. This two-tailed test resulted in a t score of 2.26, and thus indicated that the experimental group achieved significantly higher scores than the control group ($p < .05$).

DISCUSSION

The results of this experiment lend support for the use of a speed-reading machine in increasing reading speed for readers of English as a second language. Assuming that the tests for the materials used here were, in fact, legitimate measures of content comprehension, it is hard to account for the differences in the two groups in any other way.

Table 2. Pretest/Post-test scores

| | | Pretest | Post-test |
|--------------|------|---------|-----------|
| Control | mn | 3.48 | 4.77 |
| | s.d. | 1.63 | 1.56 |
| Experimental | mn | 3.48 | 5.68 |
| | s.d. | 1.63 | 1.56 |

Maddox, in his well-known book *How to Study*, says "Mechanical devices are . . . in no way superior to the method of timed practice . . . , at least for mature students." (p. 85). There are those who disparage the use of "mechanical devices" and "gimmicks" of any kind in teaching students to improve reading speed because it is the gimmick that stimulates interest and not the practice itself (Bright and McGregor, p. 96). While overdependence upon machines may be detrimental to sound pedagogy, one would be hard put to show that the motivation lies in the machine and not in the method. Even if it were possible, many a teacher would be willing to try anything if it provided motivation!

This type of mechanical training may be particularly useful to students for whom their native language requires vertical tracking. By mechanically delimiting the field of vision, this method provides a means to train students to concentrate on horizontal symbols in a paced and orderly manner.

One obvious drawback to this type of training is lack of attention to individual differences. Some students may be slowed down by the process; others may be pushed beyond their capabilities. The projector, however, can be used for groups of any size up to 50 or so and, therefore, its effectiveness will depend upon the way it is used.

Available time was limited in this experiment to the first 20 minutes of a 90-minute class that met only once a week. From the results obtained here, it seems likely that

more intensive training would lead to even greater accomplishments. Such intensive training might consist of increased frequency of exposure either in number of times per week or in number of viewings per session as well as in class discussions regarding content of stories. In addition, prolonged exposure over a period of time would help to consolidate the learning progress of the students.

How did the students themselves feel about the use of this method? One week following the experiment, the experimental group was asked to complete a six-item questionnaire regarding the method and its effectiveness. They were asked to respond on a five point scale to the following statements:

1. Comprehension improved: yes --- no
2. Speed of presentation was: too slow --- too fast
3. Allotted time was adequate: no --- yes
4. Method was appropriate: yes --- no
5. Prefer to continue: yes --- no
6. Speed-reading ability improved: yes --- no

Results for the six items were as follows:

| | <i>Mean</i> | <i>s.d.</i> | <i>Mode</i> |
|--------------------|-------------|-------------|-------------|
| 1. Comprehension | 3.2 | 1.29 | 3 |
| 2. Speed | 4.4 | .78 | 5 |
| 3. Allotted time | 2.3 | 1.34 | 1 |
| 4. Appropriateness | 1.88 | .99 | 1 |
| 5. Continue | 2.11 | 1.33 | 1 |
| 6. Improvement | 2.86 | 1.32 | 2,4 |

While students (naturally) felt that the speed of the exercises was too fast (Item 2) and that their comprehension did not improve much (Item 1), they nevertheless felt that the method was appropriate (Item 4), and would not mind continuing the training (Item 5). Moreover, some students indicated privately an interest in continuing this type of training on their own time. One student felt it was especially helpful in her preparation for the TOEFL examination. However, one student complained of difficulty in seeing the projected image clearly.

CONCLUSION

While this method may not be the complete answer to improving reading speed, it does appear that judicious use of a reading projector can be beneficial for college-level students. Used in combination with other types of exercises, this method may provide the extra stimulation necessary to challenge students to read faster. Further attempts to discover an optimum pattern for utilizing a reading machine could bring quite beneficial results.

REFERENCES

- Bright, J. A. and McGregor, G. P. *Teaching English as a Second Language*. London: Longman Group Ltd. 1970.
- Crane, S. *The Red Badge of Courage* in Tierach-Allen, D. (ed.), *Classics in Therapeutic Readability for Contained Reading* series. New York: AV Concepts Corporation. 1979.
- Lado, R. *Language Teaching: A Scientific Approach*. New York: McGraw-Hill, Inc. 1964.
- Maddox, H. *How to Study*. New York: Fawcett World Library. 1963.
- Pugh, A. K. "Implications of problems of language testing for the validity of speed reading courses". *The Modern English Journal* 1977 (7), 31-5.
- Wells, H. G. *The Time Machine* in Tiersch-Allen, D. (ed.), *Classics in Therapeutic Readability for Contained Reading* series. New York: AV Concepts Corporation. 1979.

THE HISTORY OF THE

CHAPTER I

The first part of the history of the world is the history of the human race. It is a history of progress, of improvement, of civilization. It is a history of the human mind, of the human soul, of the human heart. It is a history of the human spirit, of the human will, of the human power. It is a history of the human glory, of the human honor, of the human fame. It is a history of the human triumph, of the human victory, of the human success. It is a history of the human achievement, of the human accomplishment, of the human deed. It is a history of the human effort, of the human struggle, of the human fight. It is a history of the human battle, of the human war, of the human conflict. It is a history of the human contest, of the human rivalry, of the human competition. It is a history of the human struggle, of the human fight, of the human battle. It is a history of the human contest, of the human rivalry, of the human competition. It is a history of the human struggle, of the human fight, of the human battle. It is a history of the human contest, of the human rivalry, of the human competition.

The second part of the history of the world is the history of the human race. It is a history of progress, of improvement, of civilization. It is a history of the human mind, of the human soul, of the human heart. It is a history of the human spirit, of the human will, of the human power. It is a history of the human glory, of the human honor, of the human fame. It is a history of the human triumph, of the human victory, of the human success. It is a history of the human achievement, of the human accomplishment, of the human deed. It is a history of the human effort, of the human struggle, of the human fight. It is a history of the human battle, of the human war, of the human conflict. It is a history of the human contest, of the human rivalry, of the human competition. It is a history of the human struggle, of the human fight, of the human battle. It is a history of the human contest, of the human rivalry, of the human competition. It is a history of the human struggle, of the human fight, of the human battle. It is a history of the human contest, of the human rivalry, of the human competition. It is a history of the human struggle, of the human fight, of the human battle. It is a history of the human contest, of the human rivalry, of the human competition.