

1939

A Comparison of Four Methods of Increasing the Reading Speed of College Students

Lyle K. Henry
Iowa State College

A. R. Lauer
Iowa State College

Let us know how access to this document benefits you

Copyright ©1939 Iowa Academy of Science, Inc.

Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Henry, Lyle K. and Lauer, A. R. (1939) "A Comparison of Four Methods of Increasing the Reading Speed of College Students," *Proceedings of the Iowa Academy of Science*, 46(1), 273-276.

Available at: <https://scholarworks.uni.edu/pias/vol46/iss1/93>

This Research is brought to you for free and open access by the IAS Journals & Newsletters at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

Offensive Materials Statement: Materials located in UNI ScholarWorks come from a broad range of sources and time periods. Some of these materials may contain offensive stereotypes, ideas, visuals, or language.

A COMPARISON OF FOUR METHODS OF INCREASING THE READING SPEED OF COLLEGE STUDENTS

LYLE K. HENRY AND A. R. LAUER

PROBLEM

Research in the field of education has brought out many weaknesses of the older systems and methods of presenting subject matter. Perhaps some of the most revealing studies have been in the field of reading. The early work of Dodge (1) has been adequately supplemented by the researches of Gates (2) Judd (4) Gray and others. Not only have vast individual differences in reading rate been noted, but marked improvement has also been effected by systematic practice exercises.

Much of the earlier work was done with grade pupils in the regular courses of study in reading. More recently Pressey (6) and others have continued studies at higher levels with very good results.

Many of the proposed remedial methods involve course work or direct supervision of an instructor. Lauer (5) was able to evolve a self-improvement method which gave results of from 30-38 per cent improvement in reading speed in 20 practices as measured by the difference between the mean of the first three and the mean of the last three trials. The American Optical Company has developed the Metron-O-Scope to improve reading speed and comprehension. The present study was made to evaluate four methods of improving reading of college students, as follows: (1) verbal instruction without definite practice, (2) Metron-O-Scopic practice, (3) practice on mimeographed subject matter and (4) use of self-improvement form.

METHOD AND PROCEDURE

The present study involves several sets of data and groups used in the evaluation process. It may be described as a series of four separate experiments. Each will need to be discussed separately. The criterion of improvement in each case was test and retest of speed and comprehension by Part 6 of the Iowa Silent Reading Test.

METHOD ONE — VERBAL INSTRUCTION

Motivation is thought to be responsible for a certain amount of remedial benefit derived by the student. Consequently, an experiment was set up to measure the effect of strong suggestions made by the instructor, as well as that of the general learning effect of test-retest procedures of the Iowa Silent Reading Test. Control group of 34 subjects was given Form A, Part 6, of the Iowa Silent Reading Test and two days later the same group was given Form B of this test to determine the effects of giving it a second time.

Another group of 33 students was given the same tests but the students were exhorted to improve their reading ability during the interval between tests. Certain specific suggestions were given as to procedure. The directions for improving reading were of the usual type, such as trying to force the eye movements, seeing phrases instead of words, and reading with a purpose, as described by Henry. (3). Otherwise nothing definite was assigned or given them in the nature of exercises. This is called the verbal instruction group.

METHOD TWO — METRON-O-SCOPIC PRACTICE

In this experiment 8 Metron-O-Scope rolls were given in the regular fashion to a group of 91 students who came in three times a week at 4:00 o'clock for regular practices. A 25-item objective test was given at the end of each roll. The speed was increased daily by some 15 words a minute.

METHOD THREE — MIMEOGRAPH GROUP

At the same hour each day, another experimental group of 80 students was given the same subject matter in mimeographed form. The same test of comprehension was given at the end of each practice period. In general this group was made as nearly comparable to the Metron-O-Scope group as possible by having the meetings at the same hour. To a certain extent the subjects were equated for ability and interest.

METHOD FOUR — HOME READING PROJECT

The fourth experimental series was based upon the "Reading Improvement Form" developed by Lauer (5). It consists of a set of twelve principles for improving reading and a carefully worked out system for the utilization of regular text-book subject matter and assignments to improve reading speed. The student used two text books he was studying and tried to apply the principles of

scientific reading during his study periods. The student was put on his honor and only those who were definitely interested in improving their reading or who were low in their scholastic work were asked to use this form. The average number of practices for this group was 20.

RESULTS

Preliminary evaluations of the five methods are shown in Table I. All rates are based upon Test 6 of the Iowa Silent Reading Test.

Table I—Summary of Gains in Speed of Reading

	Test-Retest Control	Verbal Instruction	Metron-O-Scope	Mimeograph	Home Reading Project
N	34	66	91	80	36
Initial Rate—words/min.	245.38	224.27	199.08	182.94	222.84
S.D.	55.60	52.05	52.05	60.75	48.08
Final Rate—words/min.	268.30	252.52	225.73	216.37	263.40
S.D.	45.00	53.40	58.75	45.50	56.75
Difference	22.92	28.25	26.65	33.43	40.56
Per Cent	9.30	12.60	13.40	18.30	18.20
P.E. Diff.	4.15	4.23	3.58	4.81	5.85
Diff./P.E. Diff.	5.52	6.67	7.44	6.94	6.93

All groups showed improvement. On the basis of per cent improvement the mimeograph group ranked first with the home reading group a close second. On the basis of critical scores the Metron-O-Scope group is first with the three other groups close behind.

A brief statistical evaluation of the criterion of improvement is presented in Table II. Reliability of the Iowa Silent Reading Test 6 was found to be .76. A higher reliability would be desirable but

Table II—Correlations: Iowa Silent Reading Test 6

Factors	N	r	P.E.r
First min. vs. Second min.	123	.74	.02
Form A vs. Form B	34	.76	.05
Minn. Speed	88	.59	.04
Ophthalm-o-Graph	88	.42	.06
A. C. E., Psychol. Exams.	153	.42	.04
Psychology grades	65	.45	.06

Traxler (7) has shown that higher reliabilities on reading forms are hard to obtain unless the reading time is over five minutes. The reading time for our test was two minutes.

SUMMARY AND CONCLUSION

In three series of experiments, using four fundamentally different techniques for improving reading of college students, involving 274 subjects, gains of from 12.6 to 18.3 per cent were noted. Test-

retest comparisons, without systematic instruction or motivation intervening, showed 9.3 per cent improvement in rate of reading on standardized tests.

Motivation is apparently responsible for a large part of improvement in student reading rate and comprehension. The net increases in reading rate may thus be said to have ranged from 3.3 per cent to 9.0 per cent. All differences noted were highly significant.

Within the limitations of these experiments it may be said that improvement in reading rate of college students can be secured by most any reasonable technique which involves the reading function, as such, and which will keep the student interested in improvement. The more nearly conditions approximate actual study the greater will be the improvement. Artificial devices for improvement of reading are perhaps more spectacular than useful.

REFERENCES

1. ERDMAN, BENO, AND DODGE, RAYMOND, "Psychologische Untersuchungen uber des Lesen: auf experimentellen Grundlage." Halle: Max Niemeyer, pp. 360, 1898.
2. GATES, A. I. "Study of depth and rate of comprehension in reading by means of a practise experiment," *Journal of Educational Research* 7; pp. 37-49, 1923.
3. HENRY, L. K. "Improvement for Slow Readers," *Journal of Education*, Vol. 122, Apr., 1939, pp. 115-116.
4. JUDD, C. H., McALLISTER, C. N., AND STEELE, W. M. "General introduction to a series of studies of eye movements by means of kinetoscopic photographs," *Psychol. Rev. Monog. Supplement* No. 29; pp. 1-115, 1905.
5. LAUER, A. R. "An Experimental study of the improvement of reading by college students." *Journal of Educational Psychology*, pp. 655-661, 1936.
6. PRESSEY, L. C. Training college freshmen to read. Ohio College Association Bulletin. No. 550.
7. TRAXLER, A. E. "The Relationship between the Length and the Reliability of a Test of Reading." *J. Educ. Res.*, 1938, pp. 1-2.

DEPARTMENT OF PSYCHOLOGY,
IOWA STATE COLLEGE,
AMES, IOWA.