Developmental Reading in Industry

by

E. N. FULKER
Purdue University Extension—Indianapolis

and

C. H. LAWSHE
Purdue University

Reading training in industry is still relatively new. Published literature on the subject is fairly scarce, in some cases questionable, and unfortunately quite scattered and sometimes difficult to understand.

An attempt has been made to highlight the facts you should know about reading; what "Developmental" reading means and entails. A list of materials and their sources is included with some comments and suggestions. Finally, a selected list of articles dealing with the theory and teaching of reading is provided. No attempt was made to contact industries engaged in reading training who have not published their experiences.

The Need for Reading Training

Most executives seem to spend an average of 1 to 6 hours per day in reading activity in and out of the office. The supervisors and executives at Johnson and Johnson averaged about 4½ hours per day which is probably typical. Furthermore, these same executives considered themselves poor readers and, without exception, eagerly sought help.

There is little doubt that reading is an important part of the job of being an executive. Skill in reading becomes all the more important, to both the executive and the company, when the following factors are considered: 1. The executive must keep informed in order to get his ideas and keep ahead of competition. 2. His reading load of reports, correspondence, magazines, inter-office memos, newspapers and other materials is at present over-burdening and seems to be increasing with time. 3. More and more, reading skill is coming to be recognized as a basic training need for the executive—basic to effective speech, writing, human relations, administrative techniques, etc.

Reading is perhaps one of the most abstract and complex acts in which man indulges. Experts in the field of reading have not as yet agreed upon a definition of reading. Some regard reading as more or less a simple process of recognizing written or printed symbols, while most seem to regard reading as a process closely akin to thinking.

For our purposes, we can consider it merely a process of getting information from the printed page. Reading then can be said to consist of two aspects: 1. a seeing or perceptual aspect and 2. an assimilative, interpretive or thinking aspect. In short, two things are involved; the eyes and the brain. Reading courses vary all the way from those which stress eye-training to those which stress "brain-training." A compromise between the two is probably to be preferred.

Efficient Reading vs. Inefficient Reading

Reading is considered a skill. Better still, a complex set of skills, and, as such, can be improved with proper practice and training. There are different techniques and methods to be used when doing different kinds of reading. The general consensus of expert opinion seems to be that no matter how good a reader one is, he can still improve. Some experts maintain that you never stop learning how to read.

Causes of Inefficient Reading

When most present day executives attended school, reading was taught much differently than it is today. One of the chief difficulties seems to arise out of the fact that reading training stopped early; usually around the sixth grade. Today, reading training is conducted all the way through grade school, in some high schools and even in some colleges.

In addition, when the present day executive went to school, oral reading techniques were stressed. He was taught to read aloud, to look at and pronounce each word, and to be very careful not to skip words. When most children could read aloud without making many mistakes, they were considered to be able to read. From this point on, they were very much on their own.

Most of us were told, or discovered ourselves, that moving the lips when reading silently was unnecessary. As a consequence, many present day executives are using oral reading skills in their silent reading. They have developed wasteful habits that have persisted. They are what reading experts call "vocal-

izers." The speed with which they can read is limited by how fast their vocal apparatus can function.

Reading training in industry is still relatively new. Published literature on the subject is fairly scarce, in some cases questionable, and unfortunately quite scattered and sometimes difficult to understand.

Reading experts further point out that there are various levels or degrees of "sub-vocalization." At one extreme we find the "lip-reader" who very obviously has retained a considerable amount of his oral reading habits. Most of us have suppressed our lip movements, but continue to involve the vocal apparatus in the form of subtle throat movements. The next level of sub-vocalization is characterized by the almost total absence of throat movement, but involves the hearing of words as we read.

The adept silent reader, on the other hand, is purported to read, not words, but ideas directly. The sub-vocalizing steps have been eliminated. Someone has likened this process to listening to a lecture, where, although words are also involved, the listener is aware of the ideas presented and does not attend to the individual words. Thus we see that many executives are inefficient readers due to inadequate, improper and insufficient training earlier in life.

Too Thorough Reading

Another contributing cause of inefficient reading among executives can probably be called "occupational." Engineers, accountants, lawyers, mathematicians, etc., because of the nature of the bulk of their reading, are slow tedious readers—but thorough. That is partially

their problem. They are too thorough. They are afraid to miss something important. They feel guilty if they skip words or survey the summary or conclusions beforehand (or this has not occurred to them).

In other words, they have become accustomed to using one inflexible rate for all of their reading. They have not learned that much of what is written is already known to the reader or probably is not worth spending the time on. They have not learned to vary their reading approach with their purpose and the difficulty of the material. They do not make reading the active process that it must be. They have not learned to think with the author, to anticipate or attempt to organize the material as they go along. They may not have had occasion to develop the technique of reading for the main ideas—summarizing, utilizing "key" words and topic headings. Perry and Whitlock suggest that what is needed by most adult readers is the confidence to dismiss the trivial. Certainly confidence in itself is important.

Limited Background

Psychologists offer one further factor contributing to inefficient reading: A limited "apperceptive mass" or to be more specific, a limited experimental background or body of knowledge. One can hardly read rapidly when almost every line of print offers something new or unfamiliar to the reader. It stands to reason that the more one has "been around," the more one reads, the better are his chances of becoming a good reader. The knowledge, attitudes and biases one brings to the printed page very much determine what will be attended to and retained through reading. Likewise, the quality of the executive's vision and his command of words or vocabulary also exert an influence on his reading ability.

It should not be overlooked that one can read too rapidly as well as too slowly. The executive who habitually is guilty of superficiality in his reading needs altogether different treatment and training from those who read in an overly exacting manner.

Reading Skills that Need Developing

A re-examination of the previous section will readily produce some of the more important skills that might be included in the training given your executives. Naturally, the needs of each individual are quite likely to differ tremendously, depending on his present reading ability and the demands of his job. Your job is to structure your reading program to best satisfy the needs of your executives.

It should be obvious at this time that the type of reading herein proposed is somewhat different from so called "speed-reading" training. The type of training described here is more properly called "Developmental Reading."

Developmental Reading is distinguished from Remedial Reading in that the former concerns itself with the developing of advanced reading techniques in normal readers (whatever they may be). Remedial Reading, on the other hand, concerns itself with the treatment of individuals who are severely retarded or handicapped in reading ability. One aspect of developmental reading includes training individuals to read in

phrase-units instead of word or syllable units, but developmental reading is far more than this. It is more comprehensive, more personal in orientation and truly developmental.

Breaking of the word-for-word reading habit, developing the ability to take in more words at a glance and to use peripheral cues to full advantage is considered basic to the fullest development of many of the other skills such as skimming, reading for main ideas, etc. Therefore, reading pacers, films and other devices are recognized as being of value as teaching aids.

The emphasis in developmental reading training, however, rests, as does all good training, on an artful, basically " good" instructor; a teacher well versed in modern educational and learning theory; a teacher who recognizes that the burden of learning rests upon the learner; that learning involves activity on the part of the learner and does not take place without a change in the learner; an instructor who recognizes that the primary role of the teacher is to facilitate learning, to guide, motivate and coach as the need presents itself.

All this should point out the necessity for keeping training groups small so that the instructor can render as much individual service as possible.

Tests

In the area of reading training adequate evaluation of results poses a fairly challenging problem. Most, if not all, reading programs administer a standardized reading test before training, and another upon completion of the course.

Extremely impressive reports of results have thus appeared throughout the literature. Unfortunately, many of these reports have been somewhat misleading. In the first place, to our knowledge, no valid standardized test exists that adequately samples the reading abilities of executives. Most of the available reading tests in use have been written for, and standardized on high school and college populations.

Ranney points out that "the executive and his son in college may make the same score on a reading test, but there are substantial differences in their interests and in the way they think."

Most reports appearing in the literature include a "before" and "after" reading rate score in terms of words-per-minute together with a percent comprehension (whatever that is) score. This score is based on the number of multiple-choice questions answered right out of 10 or 20 items. This procedure is not totally undesirable when the name of the test is given; when the two forms administered have been shown to be roughly equivalent; when the results are given in terms of averages; when the "after" group is the same as the "beginning" group; and when other sound testing procedures are employed.

Reports Incomplete

Far too often, in reading these reports that appear in the literature, the above conditions have not been fulfilled. At least one report listed the "before" and "after" rate scores, but failed to include the comprehension scores.

Another common malpractice is to report results in terms of "percent increase in speed." There is a big difference in the 100% gain made by the

DEVELOPMENTAL READING IN INDUSTRY

individual who increased his rate score from 100 to 200 words-per-minute and the individual whose 100% increase was from 300 to 600 w.p.m.

In most of the programs with which we are acquainted, no provision seems to have been made for "practice effect." We have had executives in reading classes at Purdue who had never before experienced an objective (multiple-choice) test. Was the increase in their "after" test a true gain in reading ability?

Habits and Effort

In addition, Staton and Maize maintain that "Much of the increase in speed is, in reality, a change in reading habits and effort, rather than a true change in reading ability." Saale further observes that "the rate commonly taken from standardized tests may be too high. It may represent the rate at which a student can read under pressure, rather than his natural rate." As a final clincher, Perry and Whitlock observe that " 'rate' cannot be reliably described, much less evaluated, in words-per-minute. The only real question is, 'How rapidly are you getting what you want'?"

To sum up, standardized reading tests when used with adult and executive groups have obvious limitations. Care should be exercised in their use and interpretation. They are quite likely of value to the teacher in his analysis of the needs of the individual and probably add greatly to student motivation. A list of tests and their sources is in-cluded on page 34. Most experts suggest the use of more than one test both "before" and "after" training.

Practice Exercises and Workbooks

Due to the lack of suitable materials for adult reading training, the burden and challenge fall upon the instructor to construct and supply materials appropriate for his group. As a guide to the instructor a list of workbooks or exercise books has also been included. In some cases, the content of these books may fit in quite well with certain skill practice sessions.

In general, it can safely be said that practice on reading materials normally read by the executive will probably result in the best learning; at least the problem of transfer of training is minimized or eliminated.

Reading Pacers

There are several reading pacers, "accelerators" or trainers now on the market. These instruments are rather widely used and are probably quite valuable as instructional aids.

They consist of a shutter, a beam of light or wire bar that can be made to descend over the page of a book or magazine at a wide variety of speeds. The reader, by setting the speed of the descending shutter, light or wire slightly faster than he can read with ease, forces himself to read faster. By gradually increasing the speed of the descending pacing mechanism, the reader is helped to develop the habit of reading faster. Word-for-word reading habits may be broken and reading in larger word group units is encouraged.

Three of these, the Reading Rate Controller, The Keystone Reading Pacer and the SRA Accelerator are described in Speer's article, Using Mechanical Devices Can Increase Speed of Reading.

Recently a new pacer called the "Shadowscope" has been developed. The Shadowscope is based on a somewhat different principle. A beam of light about one inch wide is projected onto the page of print and made to descend over the page at varying rates. From an educational point of view, the Shadowscope is probably the soundest pacer now on the market. It comes as close to the normal reading situation as seems possible at this time. With its use, the reader is less likely to get conditioned to reading fast only when using the instrument, minimizing the danger of lack of transfer of training. In addition, the Shadowscope seems to possess other features that promise to render it a valuable teacher aid.

A short time ago another pacer based on the shutter principle made its appearance. As yet very little information is available except that the price is considerably lower than most other reading pacers. It is called the "A.V.R. Rateometer."

The reading pacer is a desirable teacher aid for one very good reason. It makes allowance for individual differences in both reading rate and learning rate. The student is allowed to read and progress at his own rate.

Reading Films

In addition to the reading pacer, reading training moving pictures are found quite frequently as part of reading programs. There are two sets of films available: The "Harvard Reading Films" and the "Iowa Reading Training Films."

The Harvard series consists of 16 short (roughly 7 minute) films which control the rate and eye movements of the reader. The Iowa series is similar in principle, but different in interest level and content. For many supervisory and executive groups, the Harvard series may be too difficult. The educational and reading level of your group would largely determine which series you should use.

Whichever set of films is used (if either is used at all), the instructor's manual accompanying the Harvard series should be read by every teacher of developmental reading. The manuals accompanying the Shadowscope Pacer and the SRA Accelerator are likewise recommended as sources of information on reading training.

Much of what is known about reading today has been learned through the use and analysis of the eye-movements of readers. Many reading programs in colleges and in industry record the eye-movements of students and executives both for diagnostic and evaluational purposes. The American Optical Company Opthalmograph, or eye camera, has probably been most widely used. Eye-movements may also be recorded electrically or observed directly.

Some individuals are "poor" readers because their eyes do not function properly. They may have any number of eye defects which require referral to a specialist before they subject themselves to the intensive visual calisthenics of the typical reading training program.

Two visual screening instruments are in common use among reading programs.

These are the Ortho-Rater, which incorporates the Bausch and Lomb Occupational Vision Tests, and the Keystone Visual-Survey Telebinocular. Most plants already administer some form of eye screening examination which may well serve the purpose.

Reading Ease Calculator

Another teacher aid which definitely bears looking into is the Reading Ease Calculator. This is a simple slide rule type device for measuring difficulty level of written material. It was developed by the Employee Research Section of General Motors and comes with a manual that includes hints on better writing. Such a device can be readily used to point out the interrelationship existing among the basic communications skills—effective reading, writing and speech.

The Tachistoscope Question

At this time, the use of the tachistoscope or flash-meter in reading training is highly controversial. Tachistoscopic training is usually classified as "eye-training." Saale and others maintain that speed of reading is determined by how fast the brain can assimilate ideas rather than the rate at which visual impressions are received and transferred to the brain.

Furthermore, Perry, in an oral address on reading training, dramatically pointed out to the members of the American Society of Training Directors assembled for their 9th annual conference in Boston, that even before tachistoscopic training, the average reader can already

see about four words at a glance. He could therefore, theoretically read about 12,000 words a minute.

In a controlled study, Freeburne concluded that neither perceptual span training nor perceptual speed training improved reading speed. Manolakes in a more recent study dealing directly with the tachistoscope as the variable under consideration found essentially the same results. Allen, Cosper and Mills and others arrive at the general conclusion, that time devoted to training with the tachistoscope results in little, if any, improvement in reading speed.

Evidence Not Conclusive

It should be cautioned, however, that the evidence against the tachistoscope is not conclusive. It is entirely possible that none of the instruments, gadgets and devices contribute very much to the improvement of reading. It has been hypothesized and urged by many in the field that they should be mainly relied upon for their motivating and other subtle psychological effects.

Administrative decisions to be faced and solved are many. You can set up your own program, let a nearby college or university conduct the training for you, or call in a commercial reading agency, of which there are several.

In any case, you will be wise to investigate the possibilities thoroughly. Consult other firms engaged in reading training, visit or write several colleges and universities and talk to representatives of several commercial reading companies. The number of colleges and universities that offer reading training is far too numerous to mention. Reading

specialists associated with some universities can be employed to help you set up your program. Other universities provide in-service training in reading for potential instructors.

Initial Cost Important

Initial and maintenance costs can be very important considerations. Scheduling or planning class time for busy executives presents a major problem in any plant. A highly individualized, flexible schedule with make-up periods can minimize this problem. The best answer to the problem of absences is to instill and keep kindled as much enthusiasm as possible. Most programs are, therefore, voluntary. Some companies require their executives to share the cost of the training. Individual record folders of progress are almost universally used.

Groups of from 5 to 12 members are probably most desirable. One hour, or at the most, 1½ hour periods, seem optimum. Some programs hold meetings daily while most seem to hold class meetings two or three times weekly. In the learning of any skill, reading included, frequent and spaced practice periods are desirable.

Most programs meet for a total of from 20 to 40 hours. An absolute minimum of 20 hours exclusive of beginning and final testing is probably a good guide. Remember, in many cases, the training involves the destruction of faulty reading habits and the establishment of newer better reading habits. Habits, in order to be established, require time and frequent use. If a program is too short, the less rapid learners are likely to revert to old habits shortly after the stimulating atmosphere of the classroom situation ceases.

For this reason it is well to establish some sort of a follow-up plan whereby course "graduates" can have access to the reading program facilities, including the advice of the instructor.

Some plants, in order to insure transfer of training, include memos with selected plant correspondence. For example, a report may appear on an executive's desk together with his usual reading load with the note attached: "Skim over this," or "Time yourself on this," or "Try summarizing or outlining this." The possibilities are countless and a challenge to the imaginative instructor and training director.

Reading and Vocabulary Tests

Diagnostic Reading Tests: Survey Section. The Committee on Diagnostic Reading Tests, Inc., Kingscote Apt. 3G, 419 West 119th St., New York 27, New York. Contains 3 sub-tests: rate, vocabulary, comprehension; 4 equivalent forms: A. B. C. D. Time: 45 minutes.

SRA Reading Record. Buswell, G. T., Science Research Associates, 57 West Grand Ave., Chicago 10, Illinois. Measures 10 reading skills: rate, general comp., paragraph meaning, directory, map-table-graph, advertisement reading, index usage, technical vocabulary, sentence meaning, general vocabulary. Also gives overall reading score. One form only. 40 min.

Iowa Silent Reading Test—Advanced form (New Edition). Greene, H. A., Jorgensen, A. N., & Kelley, V. H., The Psychological Corporation, 522 Fifth Avenue, New York. Measures rate and comp., directed reading, poetry comp., word meaning, sentence meaning, paragraph comp., location of information. Four equivalent forms: Am, Bm, Cm, Dm. 45 min.

Nelson-Denny Reading Test. Nelson, M. J., & Denney, E. C., The Psychological Corp. 136 items: 100 vocab., 36 paragraph test. 2 forms: A and B. 30 min., H. S. and College Norms.

Michigan Speed of Reading Test. Greene, E. B., The Psychological Corp. 240 four-choice items in 8 fields: human relations, commerce, govt., physical science, biological science, math., fine arts, sports. 2 forms: AM, BM. 50 min.

Minnesota Speed of Reading Test. Eurich, H. C., Psychol. Corp. Measures speed of comp. by cancellation of absurd phrases. 2 forms. 6 min.

Wide Range Vocabulary Test. Atwell, C. R., & Wells, F. L., Psychol. Corp. 100 item multiple choice. 2 forms: "B"—items arranged by order of difficulty, "C"—items alphabetically arranged. No time limit—approx. 10 min.

Exercise and Workbooks

Efficient Reading. Brown J. I., Boston: D. C. Heath & Company, 1952.

Reading Manual and Workbook. Carter, H. L. J., & McGinnis, D. J., New York: Prentice Hall Inc., 1949.

Toward Better Reading Skill. Cosper, R., & Griffin, E. G., New York: Appleton Century Crofts, 1953.

How to Read Better and Faster. Lewis, N., New York: Thomas Y. Corwell Co., 1951.

Selections for Improving Speed of Comprehension. Perry, W. E., Jr., & Whitlock, C.P., Cambridge, Mass.: Harvard U. Press, 1948.

Study Type of Reading Exercises—College Level. Strang, Ruth, New York: Bureau of Publications, Columbia U., 1951.

A College Developmental Reading Manual. Wilking, S. V., & Webster, R. G., Boston: Houghton-Mifflin Company, 1943.

Atlantic-Guide to Better Reading Skills. The Atlantic, 8 Arlington St. Boston 16, Mass. A special monthly supplement.

Factory Management and Maintenance. New York: McGraw-Hill. In some 1951-52 issues one feature was set aside for the reader to time and test his reading.

Reading Pacers

A.V.R. Rateometer. Audio-Visual Research, 531 S. Plymouth Court, Chicago 5, Illinois.

Keystone Reading Pacer. Keystone View Company, Meadville, Pa.

Reading Rate Controller. Three Dimension Company, 3512 N. Kostner, Chicago, Illinois.

Shadowscope Reading Pacer. Lafayette Instrument Co., Lafayette, Indiana.

SRA Reading Accelerator. Science Research Associates, 57 W. Grand Ave., Chicago 10, Illinois.

Reading Films

Harvard Reading Films. Harvard U. Press, Cambridge, Mass.

Iowa Reading Training Films. Bureau of Audio-Visual Instruction, Extension Div., State U. of Iowa, Iowa City.

Tachistoscopes

Keystone Tachistoscopic Outfit (Group tachistoscope). Keystone View Company, Meadville, Pa. Overhead projector, flashmeter and materials.

Renshaw Tachistoscopic Trainer (Individual). Stereo Optical Co., 3539 N. Kenton Avenue, Chicago 41, Illinois.

Miscellaneous Materials

The Opthalmograph. American Optical Company, Chicago, Illinois.

The Ortho-Rater. Bausch and Lomb Occupational Vision Test, Bausch and Lomb Optical Company, Rochester, New York.

Keystone Visual-Survey Telebinocular. Keystone View Company, Meadville, Pa.

Reading Ease Calculator. Science Research Associates, 57 W. Grand Ave., Chicago, Ill.

The Carrier Speedreader. Carrier Speed Reading System, 5216 Everts Lane, San Diego 9, California.

Selected References

Allen, M. R. Adult reading improvement at an army service school. *Sch. & Soc.,* 1951, 74 (Aug. 4) 72-76.

Anderson, I. H., & Dearborn, W. F. The psychology of teaching reading. New York: Ronald Press, 1952.

Baker, J. B. Adults acquire reading competence. *Baltimore Bull. Educ.,* 1950, 28 (Nov.), 27-29.

Bear, R. M. Organization of college reading programs. *Educ.,* 1950, 70, 575-81.

Bellows, C. S. Reading abilities of executives: Appraisal of a method for improving communication. *Amer. Psychologist,* 1949, 4, 285. (Abstract)

Bellows, C. S., & Rush, C. H. Jr. Reading abilities of Business executives. *J. Appl. Psychol.,* 1952, 36, 1-4.

Bish, C. E. An experiment in reading improvement. *Nat. Assn. Sec. Sch. Prin. Bull.,* 1952, 36, 89-96.

Broxson, J. A. Teaching adults to read. *Peabody J. Educ.,* 1943, 20, 166-172.

Buswell, G. T. Remedial reading at the college and adult levels: An experimental study of their development. *Suppl. Educ. Mongr.,* 1939, No. 50.

Carlson, T. R. Relationship between speed and accuracy of comprehension. *J. Educ. Res.,* 1949, 42, 500-12.

Carr, G. G. Stop wasting your time: executives find need for faster reading, turn to development courses. *Iron Age,* 1953 (March 5), 118.

Carrillo, L. W., & Sheldon, D. W. Flexibility of reading rate. *J. Educ. Psychol.,* 1952, 43, 299-305

Colby, A. N., & Tiffin, J. Reading Ability of Industrial Supervisors. *Personnel,* 1950 (9), 156-9.

Connett, T. R. How to read better and faster. *Factory Mgmt. & Maint.,* 1951, 109 (10), 84-89.

Cosper, R., & Mills, B. Developmental reading at Purdue. *J. Higher Educ.,* 1953, 24, 258-62.

Cosper, R., & Mills, B. Reading comprehension and speed. *Sch. & Soc.,* 1953, 77, 359-62.

Freeburne, C. M. The influence of training in perceptual span and perceptual speed upon reading ability. *J. Educ. Psychol.,* 1949, 40, 321-52.

Jackson, J. L. Progress report on the reading laboratory at the air command and staff school. *Sch. & Soc.,* 1953, 78 (July 11), 8.

Judson, H. Executives get basic training—reading for profit. *Oil & Gas J.,* 1953, 52 (2) 250-52.

Machaver, W. V., & Borrie, W. A. Reading improvement program for industry. *Personnel,* 1951 (9), 123-30.

Manolakes, G. The effects of tachistoscopic training in an adult reading program. *J. Appl. Psychol.,* 1952, 36, 410-412.

Massie, J. S. In plant training for better reading. *Factory Mgmt.,* 1953, 111 (3), 110-12.

Mullins, C. J., & Mowry, H. W., III Twenty-one top executives learn to read 216% faster. *Personnel J.,* 1953, 31, 336-38.

Perry, W. E. Speed reading techniques for executives and workers. Oral address in *Proceedings 9th Annual Conf. Amer. Soc. Train. Dir.,* Boston, 1953.

Perry, W. E., & Whitlock, C. P. The right to read rapidly. *Atlantic,* 1952, 190 (11), 88-96.

Phillips, A. J. Good readers! Good writers! Good speakers! *Mich. Educ. J.,* 1950, 27 (Feb.), 339-43.

Pringle, K. D., & Pringle, H. F. Time yourself in reading this. *Nations Bus.*, 1953, 41 (Mr.), 86-9.

Ranney, R. G. Would you read a little faster. *Dun's R.*, 1953, 61 (Mr.), 30-1.

Saale, C. W. Some phychological bases for improving reading. *Clearing House*, 1949, 24 (Nov.), 148-50.

Saine, L. Shifting philosophies of reading. *Engl. J.*, 1950, 39, 568-71.

Smith, H. P., & Tate, T. R. Improvements in reading rate and comprehension of subjects training with the tachistoscope. *J. Educ. Psychol.*, 1953, 44, 176-84.

Speer, G. S. Using mechanical devices can increase speed of reading. *Nations Sch.*, 1951, 48 (Oct.), 45-8.

Staton, T. F., & Maize, R. C. A voluntary reading-improvement program for Air Force Officers. *Sch. & Soc.*, 1952, 76 (July 19), 42.

Strang, R. M. Teaching communication arts in a reading center. *Harvard Educ. R.* 1948, 18 (Mar.), 109-14.

Traxler, A. E. Research in reading in the United States. *J. Educ. Res.*, 1949, 42, 481-99.

Traxler, A. E. Value of controlled reading: Summary of opinion and research. *J. Exper. Educ.*, 1953, 7, 280-92.

Triggs, Francis O. Questions frequently asked concerning reading instruction and measurement of reading skills at the college level. *Educ. Psychol. Measmt.*, 1949, 9, 550-57.

Westover, F. L., & Miller, M. L. Improvement of reading ability resulting from 40 clock hours of training with individualized methods. *Amer. Psychologist*, 1950, 5, 337. (Abstract)

Faster reading ups efficiency at Mutual Life. *Amer. Bus.*, 1952, 22 (Sept.), 14-15.

Fast reading vs. fast thinking. *Fortune*, 1953, 47 (May), 188.

Maryland Society of Training Directors sponsors speed reading for management. *J. Industr. Train.*, 1953, 7 (5), 2-3.

You can read faster than you do. *Mod. Industry*, 1951, 21, (Jan.), 42-5.

The analysis of the reading graph. *Amer. Optical Co.*: Bur. of Visual Science, 1938.

Rodolfo Turenne of the Servicio De Coopetacion Tecnica Industrial, Santiago, Chile, is visiting a number of firms in the United States which conduct supervisory and management training programs. His trip is under the auspices of the Bureau of Apprenticeship, Washington, D. C., and the ASTD has been asked to suggest training programs for him to visit during his three months stay. Mr. Turenne has completed a course in executive development under Dr. Erwin H. Schell at M.I.T. He spent a day visiting with the *Journal* editor in New York in January.