

FOCUS ON EXCEPTIONAL CHILDREN

THE USE OF DIRECT AND CONTINUOUS MEASUREMENT TO EVALUATE READING MATERIALS AND PUPIL PERFORMANCE

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CURRICULUM DEVELOPMENT AND READING EVALUATION

When reading performance is evaluated it is typically done by means of an assessment process that is both *indirect* and *infrequent*. In most cases either a diagnostic inventory or an achievement test is used to measure reading proficiency. Although certain relationships have been observed between a pupil's score on such a test and his ability to perform on a day-to-day basis, the former evaluation is at best indirectly related to the pupil's daily assignments.

When achievement or diagnostic tests are given, either one score is obtained which reveals the subject's overall performance on the test, or a set of scores is provided, each indicating the child's capabilities on a discrete portion of the test. Such an assessment technique may be indirect, in that measures could be obtained relevant to the pupil's abilities in skills A and B, while his school program is concentrating on tasks C and D. Whether or not in such circumstances a pupil's score on a standardized test is adequate or inferior, or whether on subsequent retests his performance remains stable or improves, is relatively unimportant. The point is that when measurement is not directly related to instruction, improvement in a pupil's day-to-day performance as the result of an instructional program could go undetected.

Furthermore, such tests are infrequently administered, usually not more often than every six weeks, and sometimes only once during each school year. The purpose of academic measurement is to provide information for the teacher, pupil, or other interested persons. Academic measurement should be used by the teacher to place pupils in various academic programs in order that instruction may begin. Once placed, measurement should be continuously obtained in order that the interaction between the pupil and the prescribed curriculum may be evaluated. If an educational program is assigned to a pupil without the teacher having first measured his ability to execute such a skill, a mismatch between pupil and academic setting could result. The student could be placed in a program where he already has total mastery, or in one where none of the requisite behaviors have been developed.

Moreover, pupil performance should be continuously monitored if discrepancies between the child and his curriculum are to be detected. The more measurement that is obtained, the more often the pupil may be evaluated, and the greater the

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opportunities for intelligent revision of educational procedures. If procedural revisions are scheduled irrespective of data, such alterations could serve no function; or worse, could influence the pupil's behavior in a direction contrary to the expectations of the teacher.

The three reading projects described in this report illustrate an alternate method of assessing reading performance. The data that accompany the following projects are directly related to pupil performance and are continuously gathered.

The measurement strategy employed is *direct*, for if the behavior of concern is reading orally from a Lippincott reader, words read from that reader are directly measured. This alternate approach is *continuous* in that many observations are obtained throughout each phase of an investigation.

Three measures are used to explain pupil performance in these studies—correct rate and error rate per minute,

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and percent correct. Correct and error rates are derived by dividing both the total number of correct and error responses by the time of the session. If, for example, 100 words were read correctly and 10 incorrectly in five minutes, the correct rate would be 20 ($100 \div 5$), and the error rate 2 ($10 \div 5$). Percent correct is derived by first summing both rates, correct and error, then dividing the number correct by the sum. In our example the correct percent would be 90 ($20 \div 22$). By obtaining these three measures the reading teacher knows the speed at which correct and error responses occur and the qualitative relationship between the two rates.

The subjects in the following three reading projects were five boys, whose ages were either eight or nine. None of the pupils had been in special education; however, each of them had either repeated a grade or had received remedial instruction. The pupils in Projects 1 and 2 were receiving remedial reading instruction in the public schools. The pupils in Project 3 were in a laboratory classroom designed for children with reading disabilities. Although the intelligence test scores of the boys were within normal limits, their achievement test scores, particularly in reading, were well below average.

Project 1 is a comparison study. A pupil's performance was measured as he read daily from three readers—two basal texts and a high-interest, low-vocabulary book. Project 2 is an assessment of a reading technique. A pupil's performance is measured during conditions where the reading material was previewed, and alternately where it was not. During Project 3 the reading rates of three boys are compared in two instructional settings. In one phase performance is measured as the boys read in a group; during the other phase the boys performed individually.

In all three projects the basic data were those measures previously mentioned, correct and error rates and percentage correct. The performance of the students, then, served to indicate the effectiveness of reading materials or procedures. Other sources, such as teachers' ease in scheduling and administering procedures, or publishers' content analyses of materials, are not considered in the evaluation of reading practices.

PROJECT 1: COMPARISON OF THREE READERS

The foundation of a reading program is often a reader. The selection of such a text is often based on a directive, availability, past experience, or testimony. In many instances one reading method is used throughout an entire

school district. The rationale for such an approach is that a coherent reading program can be arranged when one basal series or procedure for teaching reading is used.

In other instances, when teachers are allowed to select reading texts for their pupils, these selections are based on availability. They use those readers that happen to be on their shelves. At other times texts are chosen for pupils because of the teacher's experience. If a teacher used a particular reading text with a number of pupils, was comfortable in administering such a book, and if the pupils appeared to like the text, he will in all probability continue to schedule that text.

Teachers are also influenced by other teachers to select certain books or adopt specific procedures. First-year teachers are generally affected by the choices of more experienced teachers. Publishers also influence the selection of reading material by touting various approaches to the teaching of reading: the phonetic, linguistic, sight-word methods, to name a few.

All these factors which can influence teachers to select reading methods and procedures have one characteristic in common: they are rarely supported by data. Reliable measurement is not often obtained regarding a pupil's performance on one set of materials or instructional procedures, much less measurement that definitively supports the selection of one approach over all others.

This experiment presents an alternate means of selecting reading materials. Such an approach recommends that the determination of which text is best suited for a particular child be based on the pupil's performance.

Method

SUBJECT AND SETTING

The subject of this study was a second-grade boy who had been in a remedial reading class for one year. This study was conducted in a remedial reading classroom in an elementary school in suburban Seattle, Washington. The manager of the study has been a reading specialist for three years and had just received a master's degree in remedial reading. This project and Project 2, which ran concurrently, were the teacher's first direct and continuous measurement projects.

PROCEDURES

Each day at 1:30 the pupil came to the remedial reading class. He was seated at a table alongside the remedial reading instructor. Throughout the experiment the boy read orally for five minutes from two basal readers and a high-interest, low-vocabulary book. First he read from the Lippincott 2nd basal reader (1964),

then the Allyn and Bacon 3rd basal reader (1965), then *Submarine Rescue* (1959), a high-interest book published by Harr Wagner whose reading level, according to the publisher, was 3rd. Readability indexes for the portions of the three readers read by the pupil were obtained using the formula developed by Edward Fry (1969). This index was 4.5 for the Lippincott reader, 4.0 for Allyn and Bacon, and 3.5 for Harr Wagner.

The instructional procedures for all three books were the same from day to day. While reading, if the child mispronounced or did not attempt to pronounce a word, he was told that word. No other instruction or feedback was provided.

Both correct and error rate data from the three readers were obtained. After each session the manager counted the number of correctly and incorrectly pronounced words and divided each total by five. Errors consisted of substitutions, omissions, and additions. Repeated words were not counted as errors.

At the end of the reading in each of the books the teacher circled the last word read. On the next day reading was continued from that point. Thus, the pupil read progressively through each text. Following each session the pupil was ushered back to his classroom; no comment was made regarding the quality of his performance.

Results and Discussion

The correct and error rate medians on the chart (Figure 1) refer to two-week periods, not different experimental phases. The student's correct rate medians in Harr Wagner went from 40 in the first two-week period to 47.3 in the third two-week period. For the same time periods, his correct rate medians in Lippincott increased from 42 to 47.6 per minute and in Allyn and Bacon from 42 to 44.3.

Changes in the opposite direction for errors occurred in all three readers. In Harr Wagner, the pupil's median error rate for the first phase was 2.0, and 1.4 for the final two-week phase. In the Lippincott text median rates for the same periods were 2.2 and 1.8, and in Allyn and Bacon, 2.6 and 2.4.

Correct rates, based on a comparison of first to third periods, accelerated 7.3 words per minute in Harr Wagner, 5.6 in Lippincott, and 2.3 in Allyn and Bacon. Error rate changes from first to third periods were .8 in Harr Wagner, .4 in Lippincott, and .2 in Allyn and Bacon.

When correct to error rate ratios were calculated, it was noted that while reading from the Harr Wagner

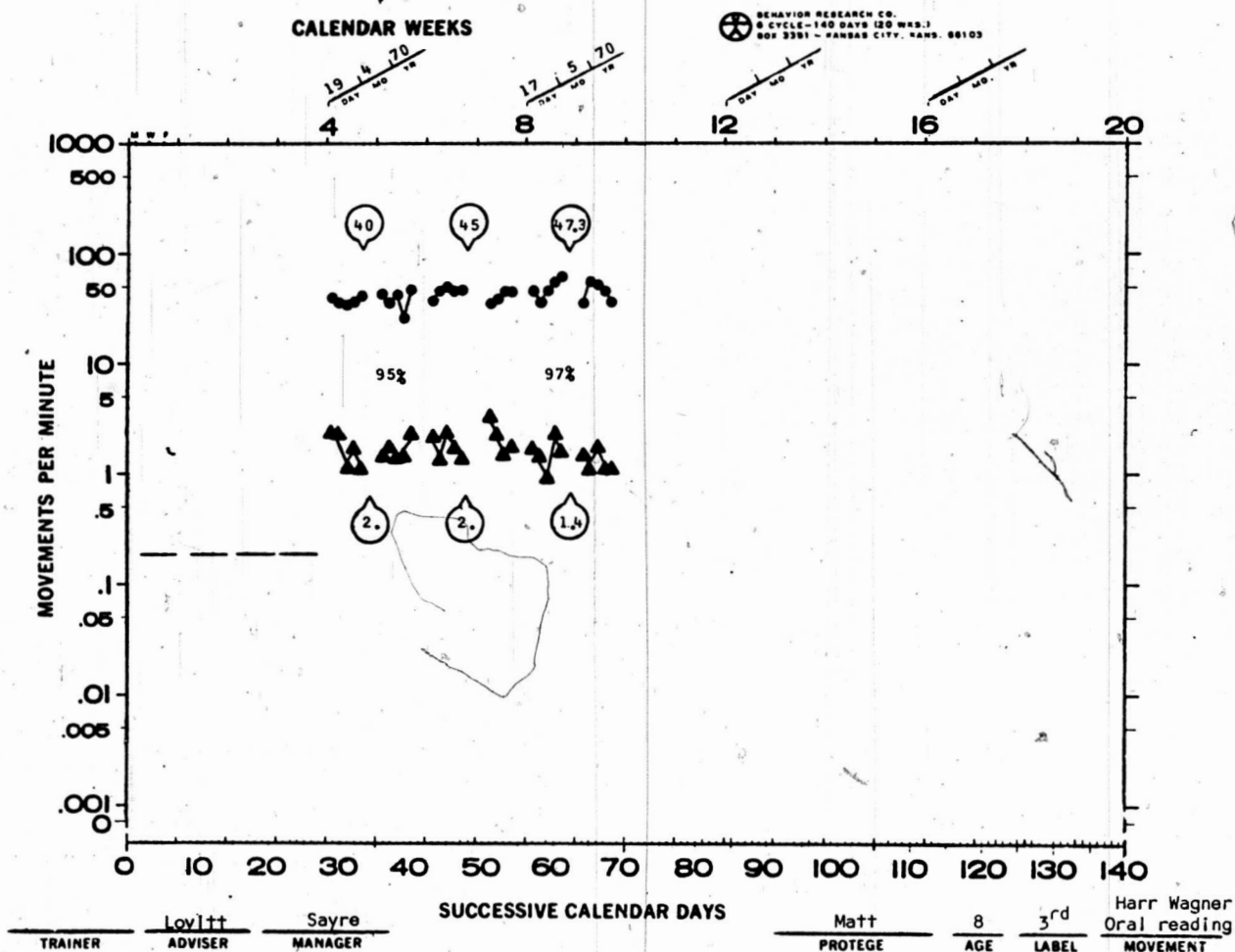


FIGURE 1

A pupil's correct and error rate performance while reading from a Harr Wagner book. Correct and error rate medians for two-week periods are indicated. Throughout the first two-week period the pupil's correct percentage was 95, and 97 for the last two-week phase.

text the pupil's median percent correct in the first phase was 95%, and 97% in the last phase. These percentages in Lippincott were also 95% and 97%, and in Allyn and Bacon 94% and 95%.

The pupil's performance, when correct and error rate and correct percentages were considered, was virtually the same in all three readers, with a slight advantage in the Harr Wagner text. This similar performance was noted in spite of the fact that the grade level of the readers according to the publisher, and to a readability index derived from a standard formula, varied. The publishers suggested grade levels were 2² for two books and 3¹ for the other, while the readability indexes of the three readers were 3.5, 4.0, and 4.5.

Had the grade level equivalent been directly related to performance, the boy's rates would have been best

in Lippincott, then Harr Wagner and Allyn and Bacon. Had readability been directly related to performance, rates would have been best in Harr Wagner, then Allyn and Bacon, then Lippincott. In neither case was such a relationship indicated. For this boy, then, reading rate was apparently related neither to grade level equivalent nor readability.

Furthermore, it should be noted that "interest," at least as defined by a publisher, may or may not be directly related to reading performance. Although the boy's reading proficiency was slightly superior in the high-interest, low-vocabulary book, his performance was nearly as good in the two basal texts, which were developed on several dimensions, one of which was interest. It is very probable that interest does positively affect reading proficiency, although that factor was not

assessed in this experiment. It could be that in this experiment the boy was equally interested in all three books. If "interest" as an effective variable is assessed in future projects, the determination of what is interesting can perhaps be better dealt with by the pupil than by the publisher.

In summary, the pupil is perhaps the best assessor of various readers. Although such descriptions and categorization schema as grade level equivalent, readability, and interest are based on some rational dimension such as sentence length, syntax, or content, only the pupil can determine what is "easy" or "difficult." If identical teaching procedures are used as a pupil reads from several texts, "easy" material is indicated by accelerating correct rate and decelerating error rate, while difficult material is that where the pupil's error rate maintains or increases and his correct rate decreases. Presumably the best reader for this pupil would be the Harr Wagner text; however, adequate achievement could be expected from the other two readers.

PROJECT 2: EVALUATION OF PREVIEWING AS AN AID TO ORAL READING

Teachers, in their efforts to assist pupils to read, employ a variety of approaches. To instruct pupils to decode or name words with some degree of proficiency, teachers focus on various instructional schemes, motivational devices, and curricular materials. Some believe the best approach to the teaching of reading is to develop phonetic competencies, to provide pupils with a system for analyzing words. Other teachers believe a necessary element in the teaching of reading is to arrange an environment that motivates the child to learn. To do so some teachers seek to find materials that are intrinsically interesting while others use a token economy or other reinforcement system to control externally the motivation of a setting. Certain other teachers are of the opinion that reading is best developed by one type of reader or another; some recommend a phonetically based text, others prefer linguistically oriented books, while still others suggest non-basal and more "literary" materials.

It is possible that most of the techniques and materials, when administered by certain teachers with certain pupils, are successful. Unfortunately, those individuals who are more committed to a specific instructional technique, rather than to academic measurement in general, often over prescribe their favored approach. Although their recommendations are based

on at least imagined success, widespread prescription of certain methods would fail to recognize that individuals are unique.

If pupil performance is the dependent measure and instructional procedures, motivational systems, and curricular materials are independent variables, then a functional or effective technique is one that assists pupils to become proficient readers.

This experiment illustrates how a teaching procedure can be evaluated in terms of its effect on a pupil's performance. The intent of this experiment is merely to demonstrate how a technique, previewing, can be evaluated, not necessarily to recommend that the tactic itself be universally adopted.

Method

SUBJECT AND SETTING

The pupil involved in this study was a nine-year-old third grader. The manager of the project was a remedial instructor in a suburban Seattle, Washington, school. Each daily session was conducted in the remedial reading classroom. The pupil and manager were situated at a table away from other children in the class.

PROCEDURE

During the first phase, which lasted for ten days, the pupil read orally for three minutes from the Harr Wagner book, *Submarine Rescue* (1959). As the pupil read, the manager followed along in another reader and noted his errors. Error classification was the same as that described in Project 1. At the end of each session the manager counted the number of correctly pronounced words. She then calculated correct and error rates each day by dividing the frequency of correct words and error words by three, the number of minutes in the session.

The instructional procedures were the same as those employed in Experiment 1. If the pupil mispronounced or hesitated at a word he was told that word and asked to say it. No further instruction was provided. At the end of each three-minute session the teacher circled the last word read by the pupil. On the next day she asked the pupil to begin reading at that point. At the end of each session the child was thanked for his participation, regardless of his performance, and ushered back to his class.

Throughout the second phase, which also lasted for ten days, the pupil listened to a tape recording of the next portion of the story. He listened to this recording for two minutes. (Since the recording was at a word-

per-minute rate of about 150 and the pupil's rates rarely exceeded 75, although the tape ran one minute less than the pupil read, the pupil never read beyond the point reached by the recording.) Following the listening period the boy was asked to read. The manner in which the teacher interacted with the pupil as he read was the same throughout all phases of the project.

In phase three the procedures were the same as those of phase two, except now, as the boy listened to a recording of the narration that he would subsequently read, he was provided a book. He was shown the starting point in the book, and for a few words at the beginning of this period the manager pointed to each word as it was read. When the manager was convinced the pupil "knew the place" he was left alone to follow

along. Following this period of looking and listening, the pupil was requested to read from the text.

The final phase of the project was procedurally the same as the first. The pupil merely read from the text; he did not hear or see the material prior to the reading.

Results and Discussion

Figure 2 presents the daily correct and error rates throughout the project. Also presented, for each phase of the project, are correct and error rate medians and percent correct. It may be noted that the highest correct rates and percent correct and lowest error rates occurred in the third phase. Throughout this phase the pupil listened to as well as looked at the material

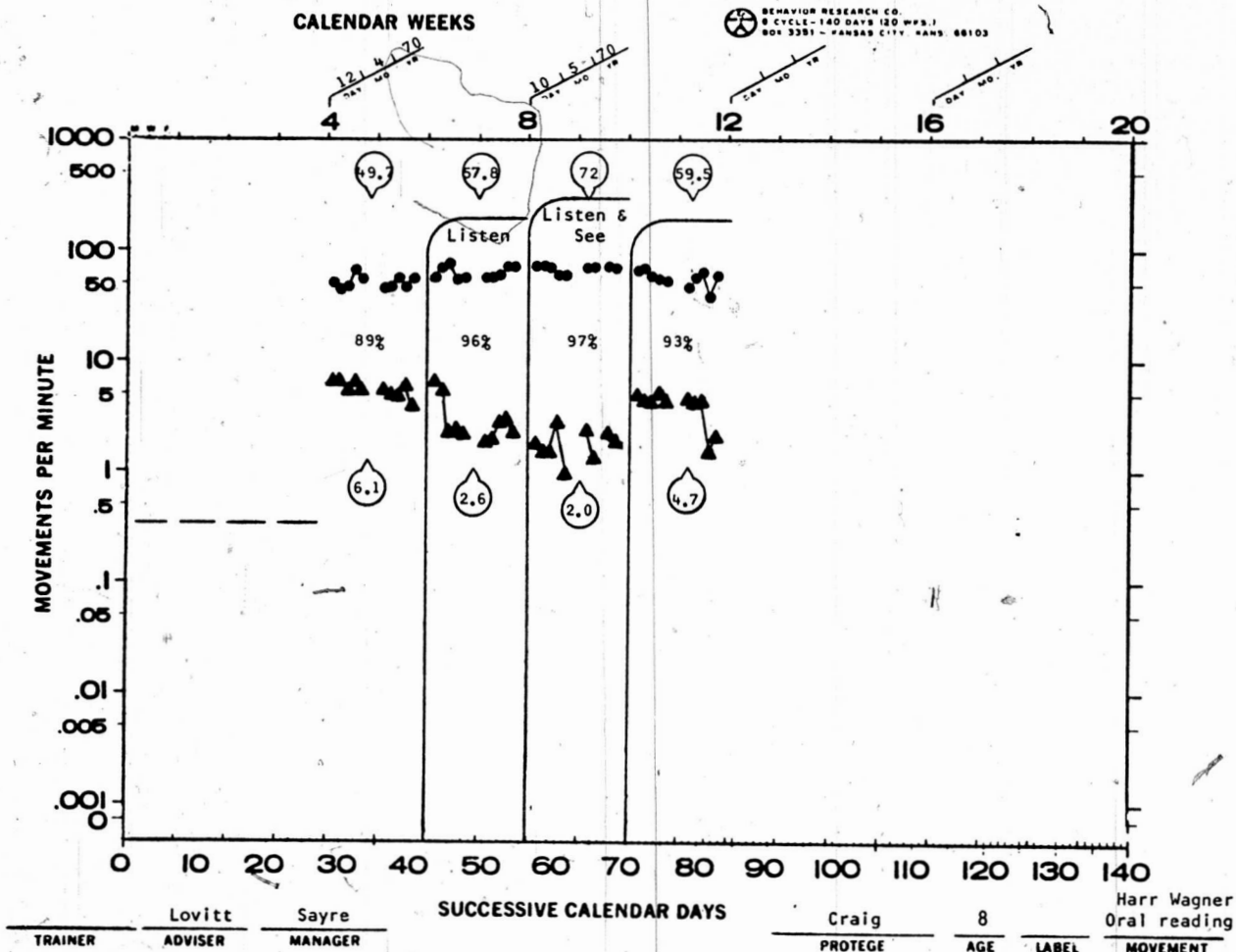


FIGURE 2

A pupil's correct and error rate performance throughout four experimental phases. During Phase 1 the pupil merely read orally from a text. In Phase 2 the pupil listened to the story before reading it. During Phase 3 the pupil looked at and listened to the story prior to reading it. Phase 4 was identical to Phase 1.

prior to reading it. Insofar as percent correct and error rate are concerned, the pupil's performance was next best in the second condition where he only listened to the material. His lowest and next lowest performances, again when percent correct and error rate are considered, were in the initial and final phases. During these phases the material was not listened to or looked at prior to reading.

When the trend of the data is considered, it is apparent that correct rate was relatively stable in the first phase whereas slight accelerations are noted throughout the second and third phases. The trend during the final phase is rapidly decelerating. It is improbable that a ceiling had been reached in phase 3, thus circumventing further acceleration, since this pupil's top rate was about seventy-five words per minute. A comfortable and satisfactory reading rate for many pupils the age of this subject is about 100 words per minute (Starlin' forthcoming).

It would appear that either listening to the story or both listening to and looking at the story prior to reading it proved effective procedures. Furthermore, a tentative speculation would be that when the pupil previewed the material by both listening and looking he was aided more than if he merely listened to the text.

The implications of such findings—that a pupil's reading is assisted by first being able to preview the material—are obvious. Tapes of several stories could be developed and a program similar to the one described here could be set up. Such a program, allowing the pupil to first preview the story and then read it, could continue until reading proficiency had been reached, possibly ninety-eight or ninety-nine percent accuracy and a correct rate of around 100 words per minute. Then the aid could be withdrawn to determine whether this performance was still satisfactory. If not, if when the aid was withdrawn his performance deteriorated, the aid could be reprogrammed, and at a later time again withdrawn.

PROJECT 3: COMPARISON OF ORAL READING RATES IN GROUP AND INDIVIDUAL SETTINGS

In most classrooms, particularly at the primary level, reading instruction is scheduled for groups. Many primary teachers organize from three to six reading groups composed of from three to eight children in each group.

An initial advantage of grouping is that certain scheduling problems are eased. For if a class is divided into four reading groups, the teacher can assign seat work to three groups while she instructs the fourth. The

groups can then rotate from individual work to group work. Another reason given for instructing children to read in groups is that as one child is reading orally or is answering questions about the content of the story, the other children, as they listen or follow along, are learning concomitantly.

Obviously, an alternate approach to group reading instruction is individual tutoring. The teacher could, instead of interacting with from three to eight children at a time, provide his undivided attention alternately to each pupil. The logistics and scheduling considerations are certainly more complex if each child is to be dealt with individually than if several children are placed in groups for instruction.

Whether or not one scheduling plan, group or individual, is more effective than the other is dependent on the reading gains exhibited by the pupils. Although it may be more efficient to schedule one way than the other, this efficiency could be meaningless unless pupil competencies are considered.

This project sought to provide data relevant to the reading performance of three boys in two reading conditions. Two phases were arranged to study this issue: first a period where the pupils read in a group, then a phase where they read individually.

Method

SUBJECTS AND SETTING

This experiment was conducted in the curriculum research classroom at the Experimental Education Unit (EEU), University of Washington. Five children, ages eight to nine, were in the class at the time of this experiment. The teacher who conducted the experiment had worked in this classroom for one year, had a B.A. in Sociology, and was completing her M.A. in Special Education.

The pupils in the study were three boys. S¹ was eight years old. He had been in the research class for two academic quarters. Prior to that he had been in a public school where he was repeating first grade. S² was nine years old. He had been a member of the research class for two quarters. Prior to his enrollment at the EEU he was in a public school classroom where he had been reluctantly passed to second grade. S³ was eight years old. He had been enrolled in the research class for two quarters. Before this he had been in a regular second-grade classroom.

PROCEDURE

During the first phase of the project the three pupils

formed a reading group. At approximately 9:30 each morning the three boys and the teacher sat at a table in the corner of the room. Each student read for five minutes from the Sullivan storybook number five. When Book 5 was finished the group read from the following Sullivan books: 4B, 5B, 6B, 6A, 6 (McGraw-Hill, 1964).

Throughout this phase, if a pupil erred in his pronunciation of a word the teacher told him the correct pronunciation. If the student hesitated and was unable to sound out a word the teacher told him the word. The teacher recorded all errors during the reading sessions, the error classification being similar to that described in Project 1.

While in a reading group the students were requested to sit quietly, to follow along as someone else read, and

not to correct each other's mistakes. This group reading phase ran for four and one-half weeks. One pupil participated in twenty-two sessions; the other two, nineteen. At each session at least two pupils were present.

During the second phase of the study, which ran for almost five weeks, the three boys were instructed individually. Each read to the teacher for five minutes, the same length of time allotted each performer in the group reading phase. The procedures while reading were the same as in the first phase.

At the beginning of this phase each pupil was in the Sullivan (Behavior Research Laboratory, 1967) reading book 3B. When this book was finished, they progressed through the same sequence of books: 2B, 3, 4, 2A. These books were of comparable difficulty to

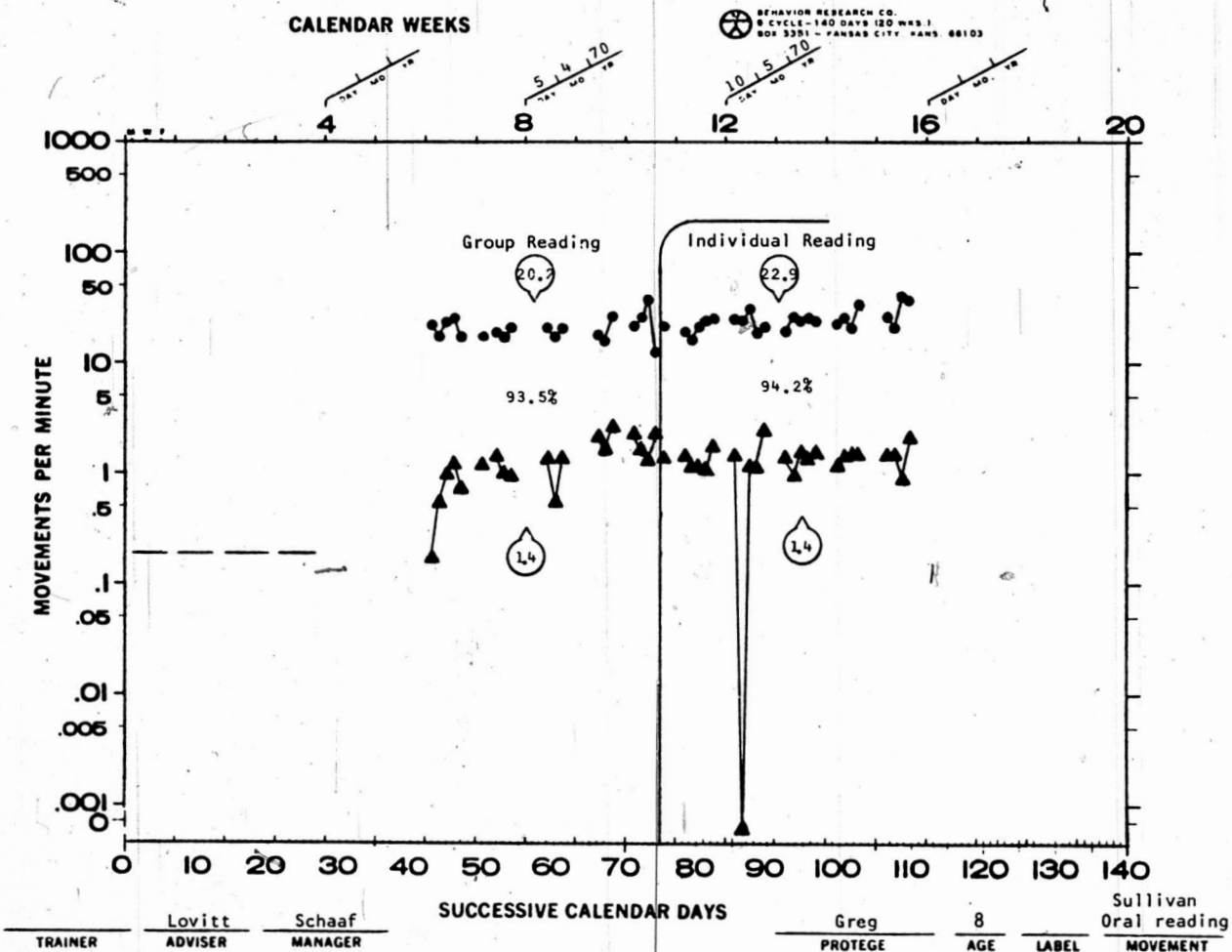


FIGURE 3
Reading performance of a pupil in two conditions, group and individual.

the books used in Phase 1.

Results and Discussion

As indicated by Figure 3, S's correct and error rate medians were 20.2 and 1.4 words per minute during the group phase while the corresponding median rates in the individual phase were 22.9 and 1.4. S's median percent correct in the first phase was 93.5 and 94.2 during the individual phase. In other words, from first to second experimental condition S's correct rate and percent correct increased while his error rate performance remained about the same.

Similar performances were noted for S² and S³; generally, from the group to the individual phase reading performance improved. The only indication of deterioration of performance from group to individual phase was S²'s error rate performance. In the group phase his error rate median was 2.8 compared to 3.0 in the individual phase. This slight error rate increase was offset, however, by his correct rate improvement, to the extent that his overall quality of performance was better in the individual than in the group phase.

Although the correct and error rate median and average percent correct analyses indicate better performance in the individual phase, this superiority is indicated more vividly when the trends of the data are considered. When the error rate trends of the three pupils were analyzed throughout the group phase, it was apparent that all three were accelerating. Meanwhile, the correct rate trends of S¹ and S² remained rather stable from beginning to end of the phase. Only S³'s correct rate trend showed acceleration (not at the rate of his error rate trend).

Throughout the individual reading phase, the trends were somewhat altered. This was particularly apparent when the three error rate trends were analyzed—all began to decline. In addition, all three correct rate trends showed acceleration. In summary, then, the longer these boys read in a group the worse they read; the longer they read as individuals, the better they read.

GENERAL DISCUSSION

Several procedural similarities can be noted in all three reading projects. First, reading errors were similarly defined in all of the experiments. An error was an addition, substitution, or omission; repetitions were not counted as errors. Second, the instructional procedures while the pupil read were the same in all projects. The teacher simply corrected the pupil if he mis-

pronounced a word and told him words that he did not attempt to pronounce. At the end of each performance the child was thanked for reading and asked to resume other academic pursuits. Third, a stop watch was used in each project to accurately time each performance.

In addition to these procedural similarities the same charts and charting conventions were used to display the data of the three projects (See Figures 1, 2, and 3). The numerals on the vertical axis from 0 to 1000 indicate the rate per minute, e.g., correct or error words read per minute. The numerals on the bottom horizontal axis from 0 to 140 pertain to successive days. Spaces on the bottom of the chart are for the identification of the personnel involved in a project, the age and classification of the protégé (generally a pupil), and the movement (the behavior that is measured).

In all of the projects correct rate is indicated by a circle, error rate by a triangle. When data were obtained on successive days (Monday, Tuesday, Wednesday) the data plots, correct and error, are connected. If, however, data were not obtained on certain days, e.g., Saturdays, Sundays, holidays, absences, this would be indicated by a space and would therefore not be linked to a day in which data were gathered.

The numerals in "tear drops" are medians; correct rate medians are above the correct rate data and error rate medians are below the error rate data. The vertical lines in Projects 2 and 3 indicate various phases, that some environmental condition has been changed. In all of the projects a broken horizontal line midway up the vertical axis may be noted. This line or *record floor* indicates the time each session lasted. The record floor is calculated by dividing the numeral one by the time of the session. The record floor in Projects 1 and 3 is at .2 ($1 \div 5$); for Project 2 the record floor is at .33 ($1 \div 3$).

The intent of Project 1 was to compare three readers. The objective was to show how a pupil's performance in several texts enables a teacher to evaluate and compare curricular offerings from a pupil's vantage point.

Other types or forms of reading material could be similarly evaluated. For example, the program could be evaluated by having a pupil read each day from a book selected by his teacher and from one he selected. The function on performance of content could also be assessed by scheduling sessions where the pupil reads from several readers that differed in content.

Whereas the purpose of Project 1 was to compare a student's performance in three texts, and teaching procedures were constant, the objective of Projects 2 and 3

was to compare one method of instruction with another. In Project 2 the objective was to compare the performance of a pupil when he merely read from a text with his performance when he previewed the text. The latter variable was, in fact, separated into only listening-to-the-material and both listening-to-and-looking-at the material.

The variable, previewing, was manipulated in this study—phase 1, no previewing; phases 2 and 3, previewing; phase 4, no previewing. This experimental design—scheduling a final phase identical to the first—allows for a more rigorous analysis of an independent variable than a two-phase experiment such as Project 3, where neither of the conditions was replicated. It is still difficult, however, to discern the precise effects of the two components of the variable, previewing. In order to discover how each component affected performance, phases where each element was independently scheduled would need to be arranged. Although listening-only was imposed in phase 2, there was not a looking-only phase.

In Project 3 where the objective was to assess performance under two conditions, individual and group, the data are reasonably decisive—rates are better during individual sessions—since similar performances were indicated by three boys. However, more conclusive data regarding the variable could have been gathered had the design included a third condition, a return to group reading conditions.

In such a study where one treatment is apparently superior to another, subsequent research could be designed to determine why the performance in one setting was inferior to that in another. In this case why was performance in the group setting not as satisfactory as when the boys read individually? Were the experimenter to respond to such a query, he would have to arrange situations to investigate various components of the group setting that might account for reduced proficiency. It could be that anticipation of peer admonishment if errors are made serves to reduce correct rate and raise errors. Perhaps if peers were programmed to praise their colleagues in a reading group contingent on good performance, the proficiency of some pupils' reading in group settings would match, or even exceed, that observed in individual circumstances.

All three projects were concerned with oral reading rate. This does not imply that the complex behavior—"reading"—can be taught if only oral reading sessions are scheduled. Certainly a well balanced reading program would comprise other elements. In the early stages of developing reading proficiency certain decod-

ing skills should perhaps be taught, skills that enable the pupil to analyze components of words phonetically and structurally. After some fluency has developed, silent reading must be encouraged. Moreover, the development of comprehension skills is basic to any reading program.

Some reading instructors would insist that the teaching of expressive skills is a necessary ingredient of a reading program. They would schedule sessions where the pupils write or tell about the stories they have read. Some would extend the idea of expression and attempt to teach their pupils to incorporate what they had read with past experience. Being able to evaluate critically would be a skill encouraged by other reading instructors.

Regardless, however, of which skills a teacher desires to develop within the area of reading, a similar evaluation strategy would prevail. First, the teacher should list those skills he wants each pupil to develop. Next, he must arrange circumstances so that data are obtained from each skill that is programed.

The type of measurement suggested in this report—correct and error rate per minute and percentage correct—is the same for all reading behaviors, not just oral reading. For example, if the teacher wants to measure a phonic skill such as the identification of certain blends, a situation could be arranged where a pupil is presented a list of various blends and is asked to articulate the sound. The teacher, by tallying each correct and error response and by timing the performance, can obtain the three data measures. If a more advanced skill such as writing about the story is scheduled, performance could be measured by counting words per minute, complex sentences per minute, or new topics per minute.

Although the entire focus of this report has been on the measurement of various reading behaviors and on the manipulation of variables that influence reading proficiency, the same measurement and evaluation techniques could be used to assess other academic behaviors. For example, such math skills as counting or computing basic facts could be measured; writing behaviors such as strokes, letters, and sentences could be appraised.

Some academic behaviors are easier to measure than others. Oral reading rate is easier to define than critical evaluation. The creative and successful teacher, however, is one who is able to define explicitly those behaviors he is concerned with teaching and set out to measure his ability to do so. If the development of a skill is important enough that a teacher schedules time for its involvement, a pupil's ability to acquire that skill and the teacher's ability to teach that skill should

be measured. For unless the elements of a behavior are explicitly defined and measured, no one will know whether or not that skill has been mastered, or with what success.

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RESOURCE MATERIALS

By Avaril Wedemeyer and Joyce Cejka¹

THE LIVING TEXTBOOK

For approximately the past ten years local newspapers across the country have sponsored the *Living Textbook*. This is a supplementary teaching program on the use of the newspaper in the classroom. Ideas have been collected from interested teachers who have been using the newspaper in their teaching. In 1968 the program involved 350 local newspapers, 17,600 schools, 48,000 teachers, and three million students.

The *Living Textbook* program is designed to create greater interest of pupils in public issues; to encourage them to seek information about these issues; and to develop critical thinking which will prepare them for intelligent selection among various choices open to citizens in our democratic society.

It attempts to bridge the gap between classroom ideals and the reality of living by appealing to the

1. Avaril Wedemeyer is a teacher of educationally handicapped children and consultant. Joyce Cejka is consultant and demonstrator of instructional materials for special education teachers.

child on a mature level, encouraging him to think as he reads. Emphasis is on the teacher and student learning together. The *Living Textbook* program has been described as a non-static text for a non-static society. The student wakes up in a new world each morning and he needs a new text for each day—new characters, pictures, stories, heroes, and ideas. The *Living Textbook* is used to teach basic educational concepts; and in the process, knowledge of current affairs is acquired. It does not substitute for a basic text; but it does supplement, enrich, add the magnetism of realism, and correlate today with yesterday.

Teachers' guides which relate language arts, math, social studies, and many other subject areas to the newspaper are available from local newspapers which participate in the program. In some cases additional suggestion sheets are sent out on a monthly basis on pertinent topics. Suggestions for organization, presentation techniques, and related activities are given at both the elementary and secondary levels. Newspapers in major cities employ educational coordinators who work with teachers participating in the program.

Additional sources of information on the use of the newspaper in the classroom are:

Remedial Reading and the Newspaper by Mary B. Easter. Available from American Newspaper Publishers Association Foundation, 750 Third Ave., New York, N.Y. 10017. \$1.00.

The Daily Newspaper in the School Curriculum. New York. Available from American Newspaper Publishers Association Foundation, 1967, 750 Third Ave., New York, N.Y. 10017. \$1.00.

740 Ways to Use a Newspaper in the Senior High Classroom, Grades 10-12. New York: American Newspaper Publishers Association Foundation, Copyright 1966, *The Courier Journal* and *Louisville Times Co.* \$1.50.

The Newspaper, A Major Supplement to the Language Arts Program for the Educable Mentally Retarded, edited by Dr. Edward Meyen, Special Education Curriculum Development Center at the University of Iowa, Iowa City, 52240.

The Newspaper in the Classroom, published by *St. Louis Globe Democrat*, June, 1966. Practical suggestions for using the newspaper in elementary classrooms and secondary schools. \$1.00.

The Teacher and the Newspaper: A Guide and Its Use. Flint, Michigan: *The Flint Journal*, 1966. \$1.50.

CLASSROOM FORUM

Edited by Austin J. Connolly, University of Missouri

PROBLEM 3

Our school makes a practice of having parent-teacher conferences each fall. Generally, the parents I need to see most are the least likely to attend. I am particularly anxious to see the parents of a nine-year-old educable retarded girl who comes from a large family in a very deprived neighborhood. This family has not participated in other types of school functions. What can I do to gain their cooperation?

Parent-teacher conferences are a small but important part of the communication effort between the school and the home. If attendance is a problem it is often indicative that teachers need to reevaluate their public relations program.

A school's policy of having parent-teacher conferences in the fall is a commendable practice, and becoming widespread. Such conferences provide an opportunity for reaching a mutual understanding of a child's educational progress. In order to realize the full potential of such conferences, teachers must be provided the time to plan them. A good parent-teacher conference is one in which the participation time is about equally divided between both parties. Often parents do not participate freely, and a teacher must tactfully elicit their participation through leading questions.

Some parents will not attend scheduled sessions, however, as in the situation described in this problem. In this instance, the teacher could provide a suitable alternative to the parent coming to the school—possibly a telephone interview or a home visit. If the telephone interview is used, it should be carefully structured and can be enhanced by sending home a personal letter indicating some general topics you wish to discuss. These alternatives are less desirable than having the parent come to the school but do have the potential for improving home-school relations. Remember, forcing belligerent parents to attend parent-teacher conferences in order to obtain report cards, etc., may serve to reinforce negative attitudes.

Positive attitudes can only be established by a continuous public relations effort. The best public relations vehicle the teacher has at her disposal is a happy

and enthusiastic student. Each day should conclude with about a five-minute enthusiastic review of the day's activities and accomplishments. It should also include a preview of tomorrow's coming attractions. Such a practice provides the child with a ready answer for the question that is often asked by parents at the dinner table, "what happened today?" If the child gives consistently positive responses to this commonly asked question, the teacher and her program are likely to be favorably regarded. A technique which often achieves favorable home-school interaction is the structuring of some home-related assignments. This can take many forms, such as: responsibility for setting the table, cooking a meal, checking the home for safety hazards, listing the furniture in a room, etc.

One of the best public relations practices a teacher can perform is the development of a parent pamphlet to be sent home at the beginning of the school year. Such a pamphlet might include: a brief introductory letter which welcomes the parent and child to the class; a table of contents for the pamphlet; a delineation of general goals and objectives for the class; a time schedule and accompanying explanations; specific class policies; examples of the various school forms for progress reports, field trips, check lists for parents, etc; and a brief description of available community resources which specifically assist handicapped children and their parents.

PROBLEM 5

A new boy is placed in your intermediate level classroom. He is from a wealthy family which has both overindulged and sheltered him. The boys in the class, most of whom are from lower socio-economic homes, have subjected the new arrival to considerable hazing. The new boy has reacted immaturely to their hazing with verbal boasts and name-calling. These tactics have resulted in many recent fights in which the new arrival comes out second best.

What should the teacher's role be in this situation?

All readers are invited to send their solution and tell how they would handle Problem 5. The January 1971 issue will summarize contributions by readers. *Focus on Exceptional Children* will award complimentary subscriptions each month for the best solution. Send your response to the Editorial Offices, *Focus on Exceptional Children*, 6635 East Villanova Place, Denver, Colorado 80222.