College freshmen enrolled in an introductory course in reading instruction were trained to use programmed tutoring techniques with children in local elementary schools. The programmed tutoring guidelines specified in detail how and what to teach; skills taught in the program were oral reading, comprehension, and word-attack skills. In the pilot project for the program, 25 college students first met on campus for 18 hours of training in the techniques of programmed tutoring, including rehearsal of all aspects of the tutoring. Each student was then assigned three first-grade and second-grade children who were having difficulty learning to read; the children were tutored in 15-minute sessions for the rest of the semester. Informal evaluation by the elementary school teachers and principal indicated that the children's reading achievement was markedly accelerated. The college students found the course a valuable introduction to classroom teaching, and the university noted an increase in favorable public relations with the local schools and with the community. Popularity of the course with the college students and requests by elementary school personnel for more tutors have led to the expansion of the program. To date, 116 students have tutored 283 children. (GW)
COLLEGE FROSH IN PRESERVICE READING TEACHING: USING
PROGRAMED TUTORING WITH SLOW-LEARNING PUPILS

A Paper Presented By

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Programed Tutoring is a set of tutoring techniques based upon principles of learning and programmed instruction. Developed by a group of psychologists at Indiana University, the techniques have been well researched over more than fourteen years and have been reported in such journals as the Reading Research Quarterly (Volume 3, Number 3, Spring, 1968).

The tutoring procedures are simple and systematic, and they are designed so that tutors may learn them in about 18 hours of instruction. The procedures are especially suited to tutors with limited academic qualifications and are not used to replace professional reading instruction. Rather, Programed Tutoring is most effective with children when it is used to supplement conventional instruction. The tutor's behavior is controlled by 1) tutoring programs which specify in detail how teaching is to be done, and 2) content programs which clearly describe what is to be taught and the order in which it is to be presented. The materials used for instruction are the same basal textbook materials as those used by the classroom teacher.
Much of this information was published in a local newspaper reprint of William Raspberry's column from the Washington Post. When I read about Programed Tutoring and Raspberry's comments describing the unusually high achievement of disadvantaged children who had been so tutored, I decided to investigate the feasibility of including Programed Tutoring into the undergraduate program at Southwest Texas State University in San Marcos.

Located 30 miles south of Austin, our university has a student population of just over 13,000 students. Traditionally a teacher-training institution, the university has grown considerably in the past ten years. Part of that growth has involved the development of new programs, among them a "concentration" or minor in reading instruction.

As teacher of the freshman level first reading course of the concentration, I had been searching for a way to place freshmen early in their college careers into the local schools for first-hand experience with children. (There is nothing so sad as a college senior who discovers during student teaching that she/he really does not like teaching or children.) On the other hand, I knew that the local teachers had grown weary and wary of yet another group of college student participants in classrooms.

Programed Tutoring, with its highly systematic procedures, seemed the ideal vehicle to use to provide freshmen opportunities to work with local children. Because the materials are used in specific ways, and because the tutor makes no decisions about how to teach or what to teach, children are protected from exposure to poor judgment and poor
teaching techniques.

Based upon the information presented in the Raspberry column, I wrote to Dr. Phillip Harris, National Director of Programed Tutoring, at Indiana University. His prompt reply brought a wealth of research information and the suggestion that I visit Programed Tutoring projects in the Houston Independent School District. Following his suggestion, I went to Houston and watched high school students, who were enrolled in remedial reading classes, tutoring inner-city primary children successfully. And, to my surprise and delight, I also saw a group of gifted black sixth grade children tutoring slow-learning black first graders. These experiences convinced me that Programed Tutoring was just what we needed in the reading concentration, and so I set about making all the bureaucratic arrangements which enabled us one year later to launch the new project.

To date, the attempt at Southwest Texas State University is the first to incorporate Programed Tutoring procedures into teacher training in reading, according to the National Director of Programed Tutoring.

Pilot Project

During the spring semester of 1976, the Pilot Project in Programed Tutoring was begun at Crockett Elementary School in San Marcos, Texas. Enrollment in one section of Education 1310, How to Teach Reading in the Elementary School, was limited to 25 students, most of whom were freshmen. This section was scheduled to meet on Tuesday–Thursday from 9:30 to 11:00 AM. Houghton Mifflin Publishers donated about $1,000 worth of materials to the Project. This included 25 Tutorial I kits for the
college students and 50 pre-primers to supplement the book supply in
the school.

We chose Houghton Mifflin Tutorial I because the local school
district uses Houghton Mifflin materials as the core of reading instruction. Other basal textbook publishers have similar kits to accompany their own materials. Those publishers are Economy, Ginn, Harper & Row, Holt, Rinehart & Winston, Macmillan, Rand McNally, and Scott Foresman.

Contents of the Houghton Mifflin kit include a Tutor's Guide which prescribes all tutoring behaviors such as where to sit, how to hold the book, how to record responses, how to elicit and reinforce correct responses, what to say if the child does not respond, what to say when the child gives an inaccurate response, the sequence of instruction, and so on. The Guide is the tutor's bible. The kit also includes a booklet of ditto masters for the record sheets, a packet of vocabulary cards, and two spiral-bound books on comprehension and word attack skills. These latter two items are used alternately with use of the children's basal textbooks.

Because Programed Tutoring supplements classroom instruction, it does not purport to cover the whole spectrum of reading skills. However, the skills that are presented are covered in a very thorough manner with far more practice than is usually provided in conventional classroom instruction. The skills which are taught in the program are oral reading, comprehension, and word attack. The Oral Reading Program stresses accuracy in word-calling; Comprehension stresses the meanings of words, sentences, and paragraphs and is taught in different materials.
from those used in oral reading; Word Attack includes skills usually
developed in both readiness and decoding.

In the Tutor's Guide, there is a Master List which specifies
the order in which lessons and skills are presented. The program, after
initial readiness skills have been mastered, alternates use of the
children's textbooks with specific comprehension and word attack skills,
so there is some variety in instruction.

During the Pilot Project, the 25 college students met on campus for
the training period of four and a half weeks. The training procedures
involved careful explanation and demonstration of each part of the
program. They also included such specifics as appropriate demeanor
and dress while in the public school. Because this was the college
students' first exposure to reading methodology, some lectures included
more than the techniques of Programed Tutoring and presented such areas
as the nature of the reading act, terminology used in reading instruction,
child growth and development, and demonstration of conventional methods
and materials connected with reading instruction. However, most of the
time was spent on explanation of the eleven "item programs" or teaching
scripts in the Tutor's Guide. Following initial introduction to the
item programs, the students were paired for simulated tutoring—that is,
one student played the role of child reader and the other one played
the role of tutor. Thus, the college students rehearsed all aspects of
Programed Tutoring, including use of the basal textbooks and the
record sheets.

After four and a half weeks of on-campus training, meeting on
Tuesday and Thursday for a total of three hours per week, we set up
permanent car-pools and thereafter met six blocks away at the elementary school.

The first and second grade teachers selected 75 children who seemed to be having great difficulty learning to read. Each college student was assigned three children; each child was to be tutored for fifteen minutes. The only demands made on teacher time and energy were the original selection of pupils, the assignment of pupils to specific reading books indicating levels of achievement or lack of it, and writing each child's name on a file folder. After these activities, no further demands were made of teachers—a far different procedure from that which they had previously experienced when they agreed to have college students participate in the school.

The college students were to receive three hours of credit and a letter grade. Beyond these, the students were, under carefully controlled circumstances, to have their first opportunity to teach and interact with elementary children. An example of a student's scheduled activities follows:

9:30 Meet car-pool riders by Evans Hall; drive 6 blocks, park, go to primary wing; find table in hall and ready materials for instruction.

9:45 Get Ramon, his book, and file folder. Socialize for a minute or two, then tutor on Lesson 46, 47 in Word Attack Skills book; return Ramon to classroom.

10:00 Get Linda, her book, and her file. Socialize for a minute or two, then tutor on Lesson 163 using pre-primer Lions; return Linda to classroom.

10:15 Get Delia Mae, her book, and file. Socialize for a minute or two, then tutor on Lessons 108, 109, 110 using Tigers; return Delia Mae to classroom; return all folders.
Meet car-pool riders at car, drive back to campus, park, go to next class by 11:00 AM.

Viewing this tight schedule, you no doubt have difficulty understanding just how much learning occurred in the brief tutoring sessions. However, the research on Programed Tutoring shows that fifteen-minute sessions are long enough—longer times fatigue the child and produce little additional achievement. Our own experiences in the Pilot Project bore out the findings of the more formal research, and within weeks of the time tutoring started, I began receiving written or verbal messages from both the teachers and the principal. Some of the messages were "Something has happened to Ramon. His whole attitude has changed toward school and especially toward reading." "Joyce is volunteering to read aloud in the reading group. She never used to do that." "René is finally catching on to phonics. Whatever you are doing, please keep it up!"

And so it went. Children who had not been making much progress in group instruction began gradually, and in some few cases even suddenly, to make noticeable progress in learning to read. Here were non-professionals getting results where professionals had not. Why?

As I observed children in conventional twenty-minute reading groups, I saw that each child responded to a question or to print about three times. On the other hand, in a fifteen-minute tutoring session where the child was required by the program to be an active learner, she/he responded 30 to 50 times. For slow-learning children, there is generally too much passivity in most conventional reading groups. When a slow-learner is the sole participant, she/he cannot be passive, especially in a program which is designed on the stimulus-response model.

At the close of the spring semester, there were three types of
evaluation of the Pilot Project: 1) by the university, 2) by the college students, and 3) by the public school personnel. All evaluations were favorable. Recommendations were made that Programed Tutoring should become a permanent part of Education 1310, and the principal of the school said, "Bring me all the tutors you can find. This is one of the best things that has happened to our school."

We regret that we do not have hard data from pre- and post-tutoring tests. Laws being what they are at present, we did not believe it would be legal to provide some children with help and deny it to others. This interpretation ruled out the use of experimental controls, and so all evaluations of this Project were subjective.

**Continuing Use of Programed Tutoring**

Because of the success of the Pilot Project, enrollment in Education 1310 grew. Word spread on campus that this course was practical, challenging, and fun—and it could be taken for credit either as part of the concentration in reading or as an education elective. Since at our institution all other education courses begin at the junior level, Education 1310 was especially attractive because it could be taken by freshmen or sophomores. The course became so popular that enrollment had to be limited, so as not to overcrowd the school. During the fall of 1976, two sections of the course were offered: one on Tuesday–Thursday from 9:30–11:00, and the other on Monday–Wednesday–Friday from 9:00–10:00.

The school principal thought it best that college students not tutor on Friday, thus leaving one day a week free for the teachers
to do extra activities in their classes. So, 50 college students tutored 125 children. Many of the children were tutored on four consecutive days and had two different tutors. The change of tutors was not disturbing to the children because the tutoring behaviors are so explicitly prescribed that both tutors did and said the same things.

At the close of the fall semester there was another extensive although subjective evaluation. Again, the results were entirely favorable.

During this present semester, the spring of 1977, 41 tutors have tutored first and second grade children. Programed Tutoring has had such an obvious impact upon children's reading achievement that the Learning Coordinator of the elementary school scheduled one whole first grade class to be tutored. To date, 116 college students enrolled in Education 1310 have tutored 283 children at Crockett Elementary School in San Marcos.

The results have been so successful in terms of children's achievement that requests have come from other elementary schools in the district to become a part of the Project. Plans call for the Programed Tutoring Project to be extended to Travis Elementary School next fall. Students enrolled in Education 1310, section 1, will go to Travis on Monday and Wednesday and will tutor 50 children. Students enrolled in section 2 will go to Crockett on Tuesday and Thursday and will tutor 75 children.

University Advantages in the Program

The advantages to the schools seem obvious: they receive hundreds
of hours of free tutoring in reading, and, at the same time, teachers
derive carefully monitored assistance in the reading program, with
virtually no demands made on their time or energy.

On the other hand, what does the university gain?

We found several important advantages accruing to the university:

1. There has been an increase in favorable public relations with
   the local community. Newspaper, radio, and word-of-mouth publicity has
   created much goodwill in a community which, like most college towns,
   has often had town-and-gown conflicts.

2. Students even at the freshman level have had an opportunity
   for first-hand experience teaching reading on a continuing basis for
   a whole semester. Based upon this experience, most the college students
   decided they had wisely chosen education as their major area of study.
   However, four of the 116 students decided to change majors, that they
   were not interested in becoming teachers after all. To provide students
   with the opportunity to make this discovery was one of the reasons for
   selecting Programmed Tutoring, so we were pleased that some chose to
   drop further study of education.

3. Students who have had the tutoring experience have demonstrated
   more realistic views about learning and failure to learn. This new
   realism is reflected in the attitudes they exhibit in the succeeding
   reading concentration courses. Students who have tutored appear to be
   more motivated to study both the theoretical foundations of reading
   and reading methodology.

4. Although Programmed Tutoring consists of rigidly prescribed teaching
   behaviors which are designed for use by non-professionals rather than
   by professionals, many of the factors involved are applicable to future
   teaching of reading. During tutoring, the students experience the
   importance of active involvement of the reader. They see that children
   who respond often and whose accurate responses are immediately reinforced
   learn better. They also see that a businesslike attitude on the part
   of the teacher subdues behavior designed to detract from the learning
   task. Above all, they find that mastery learning is possible for
   so-called slow learners if they are provided with individual attention
   and ample practice.
Conclusion

The Programed Tutoring Project at Southwest Texas State University has been presented here as a model for any teacher training institution desiring more student participation with real children in a school setting. The specifics of Programed Tutoring protect children from unwise choices and unskilled teaching on the part of the tutors. Further, the program is so specifically prescribed that very few demands are made on teachers' time and energy. In addition, the procedures are easily learned by college instructors who may wish to incorporate them into their methods courses; only about 18 hours of instruction are needed for tutors, and very little more is needed for tutor-trainers.