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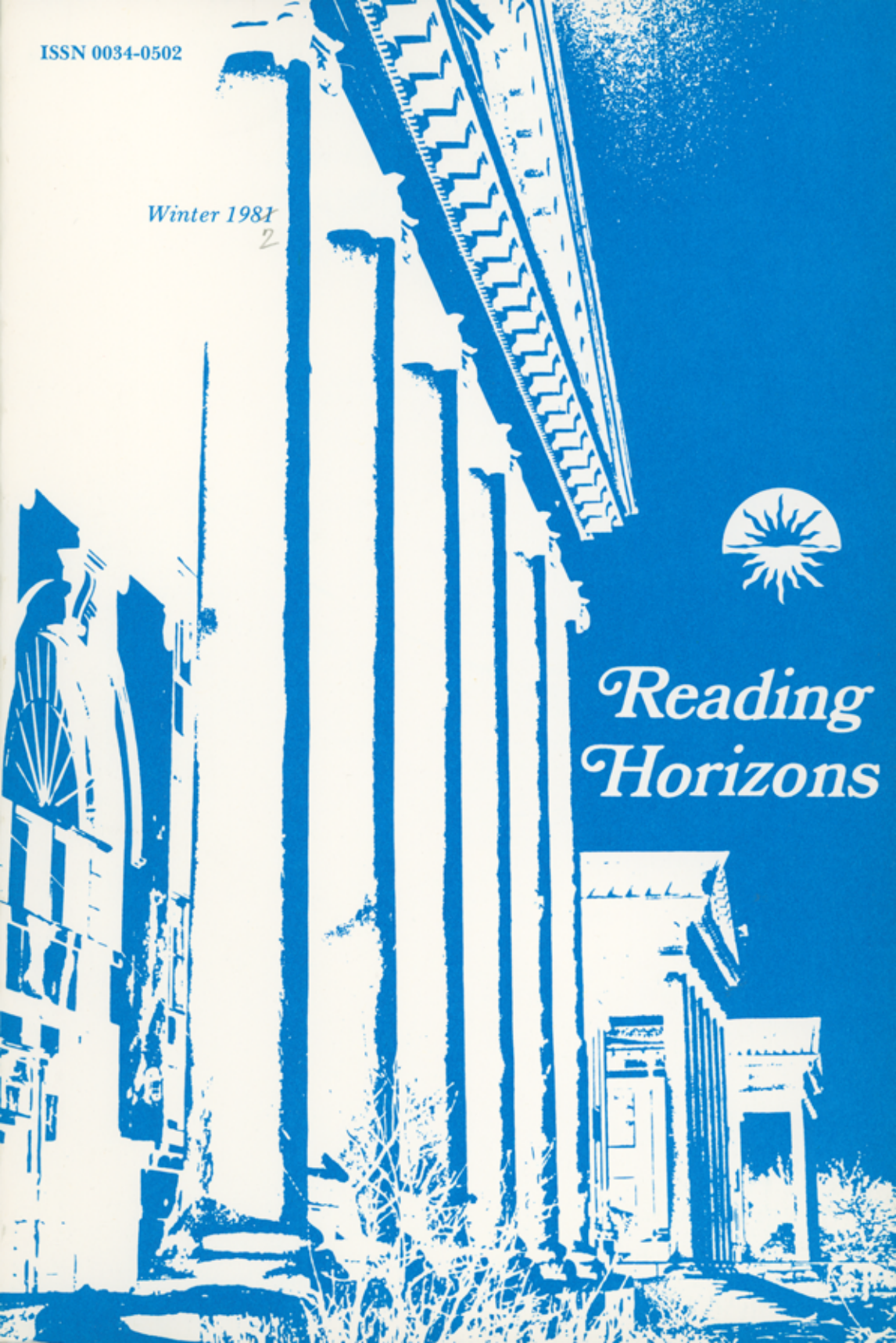


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THE EFFECT OF A MINI-CONFERENCE ON TEACHER BELIEFS ABOUT THE READING PROCESS

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Five decades ago, William S. Gray asserted that "Sound reading instruction and the development of reading programs presuppose a clear understanding of the nature of reading and the fundamental processes involved" (Gray, 1937, p.25). More recently, Harste and Burke (1977) demonstrated that teachers' philosophy of reading manifested itself in their instructional procedures and the quality of students' oral reading miscues. For example, teachers professing a psycholinguistic, language-based orientation to reading instruction tended to engage their students in holistic language activities such as the language experience approach. Conversely, teachers subscribing to a skills mastery approach relied more heavily on pre-packaged diagnostic and prescriptive materials. If teachers' understanding of the reading process is crucial to their ability to make informed decisions, what means exist to advance their knowledge of the reading process?

There is evidence to suggest that teachers are reluctant to read professional journals (Cogan and Anderson, 1977; and Mour, 1977) perhaps because of time constraints, and even more hesitant to embrace classroom implications from research (Clifford, 1973; Pearson, 1978). Since the very people who are in the best position to field-test new theories and related strategies are not eager to read about them, alternate means should be made available to keep teachers abreast of their chosen field.

The present study was undertaken to appraise the degree to which teacher beliefs about the reading process might be updated through attendance at a weekend mini-conference. The mini-conference focused on classroom application of findings from contemporary psycholinguistic research.

Methods

Subjects

The subjects were 88 male and female teachers who voluntarily spent a weekend attending a mini-conference entitled "Reading and the Linguistically Different Learner." sponsored by the Reading Department, California State University at Fullerton. Their years of experience as teachers ranged from one to 29 years with an average of 9.2 years for the total population. The number of graduate semester units in reading among them varied from none (15 subjects) to 39 (one subject), averaging

13.5 semester units.

Teachers were recruited for the conference by means of newspaper articles, posters on college bulletin boards, brochures and word of mouth. The fact that the major speaker was Dr. Yetta Goodman, a widely known proponent of language based instruction, was well publicized. The conference was held on a Friday evening from 4:00 p.m. to 10:00 p.m. and on Saturday from 9:00 a.m. to 5:00 p.m.

Instrument

In order to evaluate any changes in teacher beliefs over the duration of the conference, the Bishop adaptation of DeFord's (1978) Theoretical Orientation to Reading Profile (TORP) was administered in a pretest/posttest format. The original TORP is a 28 item survey that was constructed to reflect beliefs and practices outlined in a variety of beginning reading programs representing three theoretical orientations to reading. The TORP includes 10 statements representing a phonics orientation, eight representing a linguistic or whole language orientation, and 10 that reflect a skills hierarchy perspective.

The TORP has been shown to consistently differentiate teachers according to their individual theoretical orientation to the reading process (DeFord, 1978). The TORP has demonstrated good validity and high reliability (Cronbach Alpha = .98) and the Bishop adaptation preserves these features.

The Bishop adaptation of the TORP was used in this study for two reasons. First, it contains 23 items that maintain the characteristics of the original TORP but make it less time consuming for administration to conference participants. Second, it supplied detailed information about the teaching experience and graduate reading course work of conference participants.

Bishop Adaptation of THEORETICAL ORIENTATION TO READING PROFILE (TORP)

(With Dr. Yetta Goodman's Responses to the Instrument)

Name _____ Date _____

Professional Role _____ Years in role _____

Years teaching _____ Number of graduate units in reading _____

Number of undergraduate units in reading _____

Directions: Read the following statements and circle one of the responses that will indicate the relationship of the statement to your feelings about reading and reading instruction.

SA—Strongly Agree   A—Agree   U—Undecided or Sometimes

D—Disagree   SD—Strongly Disagree

1. When a reader doesn't know a word, the SA   A   U   D   SD
correct response should be given.

2. A child needs to be able to verbalize the rules of phonics in order to process new words. SA A U $\xrightarrow{\quad}$ D SD
3. If every word is accurately reproduced, the story should be completely understood. SA A U $\xrightarrow{\quad}$ D SD
4. A child cannot read before he has had formal reading instruction. SA A U $\xrightarrow{\quad}$ D SD
5. Reversals are a significant problem in the teaching of reading. SA A U $\xrightarrow{\quad}$ D SD
6. Fluency and expression are necessary components that make a good reader. SA A U $\xrightarrow{\quad}$ D SD
7. It is a good practice to correct a child as soon as a mistake is made while reading orally. SA A U $\xrightarrow{\quad}$ D SD
8. Context should be a major focus in reading instruction. $\xleftarrow{\quad}$ SA A U D SD
9. The more errors a child makes, the poorer is his reading ability. SA A U $\xrightarrow{\quad}$ D SD
10. When a child does not know a word, he/she should be instructed to sound out its parts. SA A U $\xrightarrow{\quad}$ D SD
11. It is a good practice to allow a child to edit what is written into his own dialect when reading orally. $\xleftarrow{\quad}$ SA A U D SD
12. It is a good idea to introduce new words before they are encountered in reading. SA A U $\xrightarrow{\quad}$ D SD
13. Mispronouncing a word is a strong indication that the child does not know its meaning. SA A U $\xrightarrow{\quad}$ D SD
14. Phonics is a most efficient way to teach reading. SA A U $\xrightarrow{\quad}$ D SD
15. It is a sign of an inefficient reader when words, lines, or phrases are repeated. SA A U $\xrightarrow{\quad}$ D SD
16. Some problems in reading are caused by readers dropping the endings from words. (Oral?*) SA A U $\xrightarrow{\quad}$ D SD
17. Language background affects the way a child should be expected to read. (Orally? Single reading process.*) $\xleftarrow{\quad}$ SA A U D SD
18. Drill with sight words is a good form of practice in reading instruction. SA A U $\xrightarrow{\quad}$ D SD
19. A child should be encouraged to guess when attending to unfamiliar words. SA A U $\xrightarrow{\quad}$ D SD

20. The way to improve reading is to improve word attack skills. SA A U $\xrightarrow{\quad}$ D SD
21. Language experience is an effective means to facilitate reading instruction. $\xleftarrow{\quad}$ SA A U D SD
22. If a child says "house" for the written word "home" he should be corrected. SA A U $\xrightarrow{\quad}$ D SD
23. The ability to read a word list is indicative of proficiency in reading. SA A U $\xrightarrow{\quad}$ D SD

(Dr. Y. Goodman's responses indicated by arrows.)

A Likert scale ranging from one to five degrees measuring strong agreement to strong disagreement was applied to each statement response. Thus, possible total scores ranged from a low of 23, implying little faith in a psycholinguistic view of reading, to a high of 115, indicating a strong alliance with a psycholinguistic perspective. For example, items one and eight illustrate the desired direction of response representing such a psycholinguistic orientation to the reading process. Strong disagreement on item one acknowledges the importance of informed guessing on the part of the reader. Similarly, item eight emphasizes the dominant role of context in gaining meaning from print. The arrows depict the direction conference sponsors and the keynote speaker hoped the participants would move as a result of their attendance.

Procedures

On the first evening of the conference, the Bishop adaptation of the TORP was administered to the 88 subjects as pretest. The teachers were instructed to write their names on the survey. At the same time, Dr. Yetta Goodman, the keynote speaker representing a psycholinguistic orientation to the reading process, completed a copy of the instrument. Rather than selecting numbers to represent her responses, Dr. Goodman used arrows to indicate the direction in which she hoped conference participants would move. These target directions coincided with the conference objectives. After the participants had completed the TORP, Dr. Goodman presented her keynote address on "Reading and the Linguistically Different Learner."

On Saturday morning, Dr. Goodman met with small groups of participants who had registered for half-hour time segments to discuss reading related questions. At the same time, another speaker presented a program on "Reading and the Ethnically Different Learner." This was followed by one hour small group presentations clustered about the conference theme.

Prior to the conclusion of the conference, teachers met in small groups that were matched according to grade or areas of interest. They discussed major conference ideas and implementation procedures. At the conclusion of the conference on Saturday evening, the same Bishop adaptation of the TORP was administered to the participants as a posttest.

Results

All 23 statement responses were added together yielding a total score for each of the 88 participants on the pre and posttest administrations of the TORP. A two-tailed t-test comparing pre and posttest means on the TORP revealed a significant difference in excess of $p .01$ for the total instrument. The pre and posttest means and standard deviations are reported in Table 1 below:

Pre and Posttest Means and Standard Deviations

Group (n=88)	Standard Deviation	Mean
Pretest	8.44	76
Posttest	7.97	86

The responses on the posttest administration of the TORP indicated that participants altered their pretest beliefs about the reading process. Moreover, they displayed an informed acceptance of the psycholinguistic view of the reading process promoted throughout the conference sessions.

Discussion

The purpose of this study was to determine whether or not experienced teachers would alter their beliefs about the reading process when exposed to a mini-conference format focusing on psycholinguistic concepts. Previous research (e.g., Harste and Burke, 1977) established that a teacher's theoretical view of the reading process strongly influenced instructional practices and childrens' developing perceptions about reading.

How do teachers come to accept a particular theory of reading? Clifford (1973) maintained that teachers adopt a belief system largely through the slow process of cultural diffusion. That is, through social encounters with colleagues and credible professionals, change may occur, albeit slowly. The mini-conference format appraised in this study provided opportunities for small group interaction with a highly credible keynote speaker and authority in reading. Moreover, small group speaker sessions supported and reinforced a psycholinguistic view of the reading process.

Based on the results of this study, teachers demonstrated a willingness to modify their beliefs about the reading process when alternate views were presented in the dynamic, concise, and practical format of a weekend mini-conference.

A logical extension of this study would involve a pre and post-conference ethnographic study of randomly selected participants in the naturalistic setting of the classroom. Such an approach would provide a fairly reliable indication of whether or not classroom decisions are altered by a relatively brief

exposure to psycholinguistic theory. For example, approaches to classroom, socio-psycholinguistic research methodology outlined by Harste and Burke (1978) and more recently by Mosenthal and Na (1980) suggest some possible directions for future investigations.

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GRAPHING		
	AS	
	A	
		READING SKILL

Don Deresz

MIAMI SPRINGS JUNIOR HIGH SCHOOL

Grover C. Mattewson

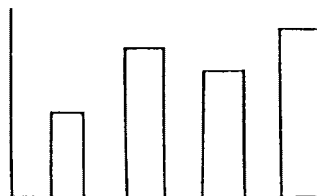
FLORIDA INTERNATIONAL UNIVERSITY

The science curriculum contains built-in opportunities for the teaching of reading skills. Using graphs is a skill that is necessary for children to gain information from their reading (Silvaroli and Wheelock, 1980). Science instruction can guide children to comprehend information from their reading by teaching them to read and infer from graphs. Lucas and Burlando (1975) stated that scientific experiences "are designed so that the student will be asked to define problems, locate information, organize data into graphic form, evaluate findings and draw conclusions.

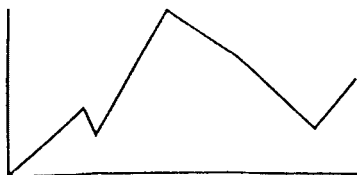
The teacher should be systematic and methodical in creating and following procedures to reach specified goals in order to increase learning effectiveness (Okey, 1978). The goals of teaching graph skills appear to exist at two cognitively dichotomous levels. First, there is the productive goal of the ability to construct graphs; second, there is the receptive goal of being able to interpret existing graphs by the students. The goals are said to be cognitively dichotomous because mastery of one goal does not assure mastery of the other.

YEAR	NUMBER OF ORANGES
1978	○ ○ ○ ○
1979	○ ○ ○ ○ ○ ○
1980	○ ○

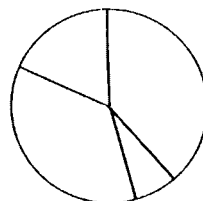
PICTOGRAPH



BAR GRAPH



LINE GRAPH



CIRCLE GRAPH

Figure 1. Examples of graph types.

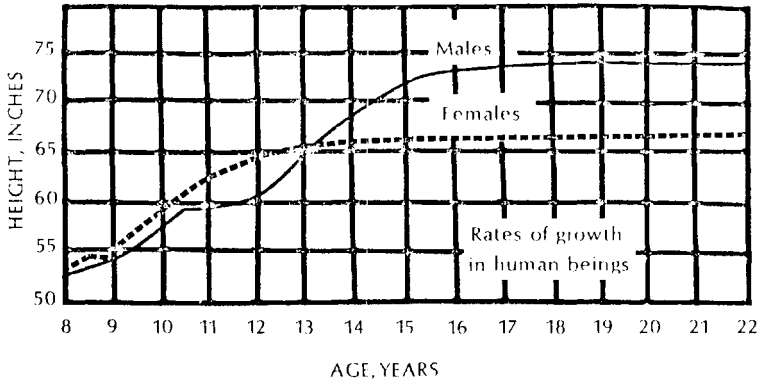
Toward the productive goal, children collect data or are given specific information from which they may construct a pictograph, bar graph, line graph, or a circle graph. Examples are shown above. The receptive goal implies that the students assimilate graphical data "in their head" and invent their own generalizations and facts based on the graphs presented to them.

Children performing activities leading up to an including graphing develop number concepts through visual experience. Smith (1979), using Piagetian theory, has formulated a number of classroom activities to enhance graphing abilities. These activities were based on four of the stages of cognitive development as stated by the Nuffield Foundation (1976). Stage one requires students to utilize concrete objects (such as themselves) and to make comparisons in a one-to-one correspondence. In stage two, children compare by making graphs using pictures of objects. The transition from a pictorial graph to a block graph occurs in stage three whereby students use square pieces of paper to construct their graphs. In stage four, children begin using large-squared graph paper in order to record data.

Graph construction activities can include comparisons of students' height, weight, and number of heartbeats or respirations per minute. Heartbeats and respirations can be measured before and after exercise. Plant growth under various conditions, animals and their habitats, and even the time records of animals or human fingers as they "run" a maze are also good bases for constructing graphs. Graphing accomplished by the learner may also provide an opportunity for the integration of other content within the science curriculum. Besides the incorporation of math skills, which can be basic (numbers) or advanced (slope and function), the teacher might have the children graph population studies (social studies), the amount of food produced by countries (global education), and the contemporary comparison of values (human development). Other graphing activities include: bar graphs of student progress in completing objectives, graphs composed from the results of games (Hirsch, 1976), the traditional teaching of graphing combined with workshops (IOWA, 1978), more games with graphathons (Dunagon, 1980), and birthdays (Sigas 1976). The many ideas for graph construction are unlimited.

Sigas suggested that students be initiated into graph construction activities as a class unit. The best assurance of mastery in the productive goal, however, would be the practical experience of a graph constructed by the individual student based on data collected from an independent science study. Graphs of simple observations may lead to more complex investigations involving the scientific method.

The necessity of having students achieve the receptive goal has acquired added dimensions. The ability to interpret graphs is required in some states, including Florida, beyond the third grade level. Furthermore, various assessment tests such as the SAT and the PSAT require mastery of the receptive goal.



Note. From Barron's College Entrance Examination SAT by S. C. Brownstein and M. Weiner, p. 327. Copyright 1980 by Barron's Educational Series, Inc. Reprinted by permission.

Figure 2. Sample of SAT type of graph interpretation exam question.

Methods formulated to enable children to meet the receptive goal demand systematic preparation also. A recent study (Kirk, et al, 1978) has suggested that students should first learn how to make and identify valid generalizations before continuing with complex predictions. This indicated that the learner should be made aware of similarities and differences in the construction of graphs for assimilation towards interpretation. There is a need here to teach common characteristics or specific critical attributes among graphs.

Vernon (1953) concluded that special training is needed in order to learn graphs. He believes that students understand diagrams better when they are supplemented by verbal explanation. Furthermore, there can be an increase in the interpretations of graphs through questioning. Of course, the difficulty of vocabulary would depend on the listening level of the children.

It appears that the more written information accompanying a graph, the more errors in interpretation may be expected. A threshold of cognitive overload may develop (Eggen, et al 1978). In fact, no matter what kind of graphic diagram is used, students are less likely to understand it if the concept or information is too complex or unfamiliar (Vernon, 1953). Thus, textual material relating to a graph should be limited or eliminated, at least in the initial instruction of graph interpretation.

In view of the above information, we propose a systematic strategy enabling children to reach the receptive goal based on a four-step process postulated from a historical study of instructional designs to teach concepts (Tennyson and Park, 1980). Although the strategy applies to the receptive goal, it is suggested that the framework be incorporated within the activities

leading to the productive goal. Care must be taken in presentation, however, to assure mastery of graph interpretation by the children.

First, the pupils should be made aware of the specific critical attributes among line, bar, and circle graphs. All three types of graphs have a title which gives an indication as to what the graph visually represents. All graphs are labeled. Bar and line graphs are usually labeled as: time vs. —, some measurement or number vs. —, distance vs. —, cost vs. —, etc. These specific critical attributes give the child a cue as to what relationships are being compared (labels) based on a specific instance (title of the graph). Circle graphs, which best illustrate the parts of a whole, usually label a proportion of something as compared to the entirety depicted by the title of the circle graph. Children should be directed to compare the specific critical attributes of graphs which are alike. That is, the child's attention in the process of interpretation should be led, first, to the title and labels of the graph under study. The comparison can use graphic material such as that presented below.

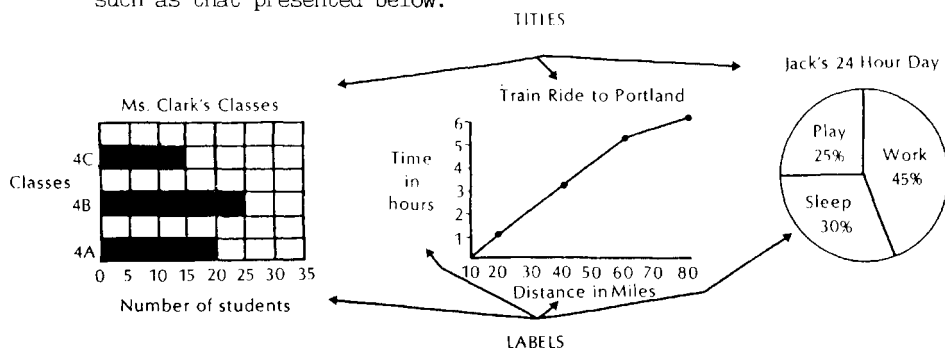


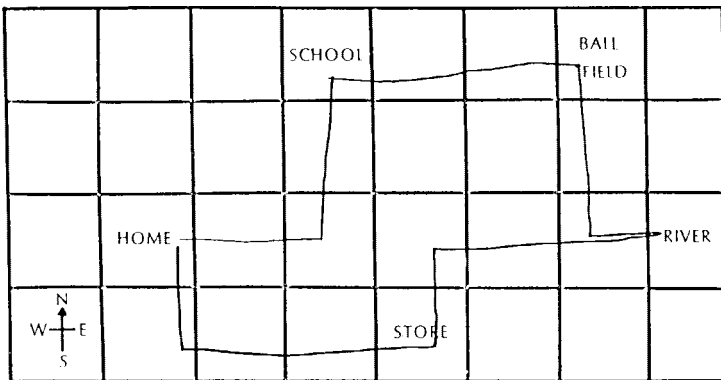
Figure 3. Graphic interpretation through comparison of specific critical attributes.

In the determination of a definition, appropriate terminology should be employed. The graph defined as a "picture with numbers to see how many more people like chocolate than vanilla ice-cream" might be more suitable for fourth graders than the more technical "a pictorial device used to display relationships" for eighth graders.

Early graph interpretation should be promoted by the teacher in oral directions or questions consistent with the vocabulary level of the children. Reciting the names and counting the pictures from a pictograph may facilitate the importance of the specific critical attributes. Simple questions about the titles and labels should lead to questions about each item graphed. Phrases such as how much or how many can be used. Viewing the entire graph, the teacher may ask, "What does the picture mean?" Words such as most, least, longest, and shortest may soon be replaced by fewer and greater. After proper mathematical skills

have been achieved by the learner, subtraction of measurements of two items on a graph is requested as a difference. Twice as many, half as much, increase and decrease are terms appropriate for advanced students.

Children can also be given graphing experiences related to early map reading skills and following directions. The student can be instructed to draw a line on a graph "two spaces East to a house, then four spaces North to the schoolhouse..." etc. An example of following these directions is shown below. This exercise initiates the learner to comprehend directions and to graph co-ordinates on the axes. Again, the teacher may ask, "Which building is farther South?"



Start at HOME.

Go two blocks east and two blocks north.

Go three blocks east.

Go two blocks south and one block east.

Go three blocks west and one block south.

Go three blocks west and one block north.

Where are you? HOME

Figure 4. Example of a student following mapping directions.

From a prototype, a bar graph for example, students should be given other similar bar graph samples from which to compare similarities of graph interpretation. Simultaneous presentation of two similar graphs can focus the learner's attention on differences. By comparing bar, line, and circle graphs which are not visually similar but contain the same information, the children may experience an increase in discriminate learning by ascertaining the likenesses and differences in the graphs. Tennyson and Park (1980) have concluded that the number of examples necessary to achieve the above objectives depends on the need and learning characteristics of the individual student.

Once children have learned to make simple generalizations, i.e., comparing similarities and differences within a graph, they can be directed to make predictions. This type of experience can provide an opportunity for the learner to make an educated guess. Predictions can be based on the weather, food costs or mathematical functions (Pereira-Mendoza, 1977).

Perhaps the most satisfying method to assure mastery of the receptive goal might be worksheets containing graph interpretation questions based on the learner's independent study suggested above. The questions should resemble the hierarchical teaching method described. For instance, the worksheet would begin by asking for the specific critical attributes and a justification for the items compared in the particular type of graph. Oral questions may be substituted for written questions, such as "What is...the greatest...the least...the greatest difference...the smallest difference?" The learner may be requested to transpose his graph into another graph form; for example, a bar graph may be transposed into a line graph. Obviously, written questions should be attempted after the verbal experiences suggest an understanding of the receptive goal, to eliminate frustration.

Diagnostic testing and remediation, whether they are student controlled or teacher-directed, do not appear to assist students in the mastery of the productive and receptive goals of graphing (Okey, et al, 1972). This conclusion should not leave the imaginative teacher looking into an abyss. A later study determined that an individual's preference and not his ability is the determining factor as to what method he will select to solve a problem (Dunlap and Frazio, 1977). Thus, many examples presented in the systematic strategy described may provide the children with many suitable opportunities to experiment cognitively in order to reach the productive and receptive goals of graphing.

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DEVELOPING STORY-TELLING SKILLS WITH LANGUAGE-EXPERIENCE STORIES

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The language-experience has been recommended and utilized to a great extent as a preparation for formal reading instruction as well as an approach to the teaching of beginning reading itself. The ideas expressed by the student are written in his/her own words which in turn become the reading material. The student's language maturity is related to his/her success in learning to read. The language development of the student indicates to a great extent the level of reading material which the student is capable of understanding at that time.

When building a suitable story with the language-experience approach, the teacher becomes aware of the student's language development. This situation provides the teacher with an opportunity to build the student's story-telling ability. The teacher is able to encourage the student to express himself verbally, to expand his use of language, and to use language creatively, thus increasing listening, speaking, reading, and writing abilities.

Much has been written about the extent of the beginning reader's vocabulary and its relationship to learning to read, but little has been said about the larger language units of sentences, paragraphs, and whole stories.

Although the use of the student's oral language in language-experience stories is comparatively easy and straightforward, to extend and increase the understanding in the use of language necessitates some type of construct for the teacher. The framework which follows is presented for use with language-experience stories, to foster the expressive language abilities of students. The examples are taken from actual experience stories dictated by children who have been motivated with pictures.

LABELING

The student responds to the pictures by giving single words, word clusters, or phrases with no complete sentences, consisting mainly of these types:

Names of Objects (such as cat, elephant, tail)

Identification of Actions (such as drink, run, play)

Descriptive Word Groups (such as black cat, in the car,
run fast, short tail)

Labeling is especially beneficial in preparing students for future reading instruction by means of word recognition and concepts.

SENTENCE DEVELOPMENT

Complete sentences are used to express thoughts and may vary from the bare minimum to highly developed and complex.

Basic Sentences

Sentences of this kind are short and contain only essential words, as illustrated in the following:

Kevin was playing ball.
The dog is laying down.
The truck is big.
This is Sam and Melissa. They are happy.

Expanded Sentences

Expanded sentences are more fully developed by the addition of descriptive words and phrases, such as those given below:

Motorcycling is an exciting sport.
The player with the white shirt had the ball.
The next day Bill and his horse reached a log cabin
on the very top of a snowy hill.
Once there was a magician at the carnival.

Connected Sentences

Ideas which are usually expressed in simple sentences are joined to form compound sentences, sometimes with compound subjects and predicates. Overuse of "and" is often apparent here.

The horse swung around and I went flying.
A tooth fairy came and got the tooth and gave her some
gum and candy and money.
The lightning hit something, but we didn't know what.
The water tanks blew up and water raced down the
building.

Complex Sentences

Ideas are related by formulating sentences of greater complexity with dependent clauses, indicating sequence, causes, effects, conditions and other relationships. Some examples are:

By the time everyone was out and safe, almost the whole
building was burned up.
George stepped back and talked to the coach to see
what was wrong.
When the parents came home, they have a little surprise
for the little boy.
The little boy is upset because the vet is going to
put his favorite dog to sleep.

STORYTELLING

Stories are presented in narrative form and may include a variety of sentence forms. Characters, setting, time, sequence and relationship are developed more or less. Several examples

are given here.

Simple Storytelling or Picture Description

A story is given which includes characters, actions and situations. The narrative is usually limited to a description of the picture being observed or the emotional response to it. This may be the type of story most often obtained from the student with the language-experience approach, as illustrated in the following:

The Happy Dog

The dog is laying down.
The girl is jumping.
The fence is laying down.
The water is moving.
The leaves are on the ground.
The girl has a dress on.
The girl is asleep.

Kevin

Kevin was playing ball.
Kevin was playing with Bill.
They were playing baseball.
Bill got hit in the face.
Bill had a fight with Kevin.
They were not friends anymore.

A Boy Finds a Dog

The boy had a wreck in his bicycle.
He was going too fast.
He skinned his knee and it hurt.
A dog came by and felt sorry for him.
The dog licked his face.
The boy laughed and took the dog home.
The boy kept the dog.

Complete Storytelling

The storyteller uses the picture as the inspiration to create a fully developed narrative, extending the story beyond the situation portrayed in the picture. Other settings can be added, new characters are sometimes introduced, descriptions may be more extensive, and a plot is well developed.

Here is the beginning of one story, which was followed by a complete plot too long to include here:

There was an old building, and some cats lived in it, that was built a million years ago. It had bells by most all of the windows. At the bottom was an old, old flag. These people went to an old town and they saw all these old buildings and most of them were falling down. So they knocked down a lot of buildings. They built new ones to replace the old ones, and cellars and stores, and gas stations, and a courthouse and a part of my home.

Creative Storytelling

Motivation by the teacher is needed in order to develop interesting and creative stories. Imagination must be stimulated to produce exciting stories. Encouragement freely given will produce many varied words and expressions; interest and meaning will result as sentences are joined and expanded. Teachers need to help students focus attention on more detailed descriptions of characters and settings. They need to see how carefully chosen words can create the mood of the story. The reader's interest must be secured with the first sentence. Folk tales and children's books provide abundant examples of creative storytelling. Students often rely on "once upon a time" as an opening sentence, but they can think of other openings which are not so commonplace. Beginning a story with such realistic sentences as the following gets the immediate attention of the reader, who anticipates a daring episode:

Motorcycles are powerful. They're fun to ride. They're real dangerous.

The framework of the preceding page is proposed as an organization for story-telling as utilized with language-experience charts. Even though pictures have been the motivational device, this procedure can easily be adapted to writing about personal experiences. Charts in which the recording of content learning from field trips and experiments in science and social studies can also be used for developing language abilities.

This framework can aid the reading teacher in recognizing the level of a student's oral language development, and may become a basis for furthering student growth. One should follow an integrated approach, i.e., give attention to all of the language elements—vocabulary, sentences, and stories. Awareness of the student's strengths will lead to improvement in other elements, as experience adds to ability. While words build to sentences and sentences into stories, central learning goals should be wider vocabulary acquaintance and adequate sentence construction. Likewise, appropriate expansion of sentence uses should be included in story-telling.

Perhaps the teacher who uses language-experience stories to make reading a successful venture for the student can also assist in promoting creative use of oral language which will continue with creative writing. Even more valuable may be the fostering of creative expression which leads to an appreciation of well-written literature.

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INDEPENDENT CLOZE ACTIVITIES FOR INCREASING SIGHT VOCABULARY

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Generally, the term cloze, derived from closure, is a term Gestalt psychology has applied to the human tendency to complete a familiar but not-quite-finished pattern. An easy example to cite is for one to observe this pattern (figure at right), and then perceiving it as a circle from the given parts.



Presently, educators have accepted the cloze procedure as a method of systematically deleting words from a prose selection and evaluating the responses given by the reader as he supplies the words deleted. A cloze response is therefore a response produced by the reader in place of the deleted word.

Research on the cloze procedure falls under three broad categories: 1) readability, 2) as a measure of comprehension, 3) modified as a teaching device (Jongsma, 71). The first two categories implement the procedure in a structured form (Riley, 1973). The third area has been concerned with using or modifying the cloze procedure as a teaching device. For example, Greathouse and Neal (1976) conducted a study that modified the cloze procedure into letter cloze and reported it to be an effective tool for teaching contractions. Letter cloze, then was a modification in which one or more letters were deleted from the contraction to be learned.

This article is concerned with modifying the cloze procedure into letter cloze independent activities to aid children in learning difficult sight words. Teachers use a variety of methods in aiding children to retain sight words in their long-term memory banks. Some of these methods range from the traditional flash cards to the modern "game" concept. Unfortunately, there are some children who still are not able to learn nor retain sight words over a given period of time. Modified letter cloze is another method to use with children who continue to have difficulty learning and retaining sight words. The independent activity might resemble the following:

from
rom
fro
fr m
f om
from
_____

1. Billy walked _____ his house to school.
2. Billy and Tommy were _____ the same town.
3. Without looking at the word, write your own sentence.

From
rom
Fro
Fr_m
F_om
From

1. _____ his house Billy walked to school.
2. _____ the same town were Billy and Tommy.
3. Without looking at the word, write a sentence that begins with the word.

through	throug_
th_ough	thr_ugh
thro_gh	_hrough
t_rough	through

1. They could see us _____ the window.
2. I could see many pretty fish _____ the water.
3. Without looking, try to write the word by yourself.
If you miss, try again.

Through	Throug_
Th_ough	thr_ugh
Thro_gh	_hrough
T_rough	Through

1. _____ the window they could see us.
2. _____ the water I could see many pretty fish.
3. Without looking, use this word in one of your own sentences.

Construct of Independent Cloze Activities

1. 5" X 8" cards. Use back and front.
2. Type the word as a whole on each side of card. (use lower case letters on one side; use the capital for the first letter and small letters for the rest of the word.)
3. Randomly delete each letter, until all the letters have been omitted once.
4. Type the word as a whole.
5. Use the word in several independent contextual situations.
6. Laminate the cards and place in a center for independent work.

In summation, the above type of activity for aiding children to retain difficult sight words has proved effective. During the past two years graduate students participating in the reading practicum at Southeastern Louisiana University have reported on an average of 15 or more difficult words being retained by

a child during a four week interval of remediation. While in the practicum, the children worked independently with their letter cloze activities, were able to learn the difficult sight words, allowing the graduate students to work on other areas of the children's learning needs.

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AN OUNCE OF PREVENTION . . .

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Reading Specialist: "I feel like a lifeguard on a river with drowning students floating by. Just as I rescue one, another calls for help and I plunge in again. Soon I become exhausted, so I go upstream to see why so many are in trouble. Imagine my surprise when I see some jumping in and a few even being pushed. I realize that I need to work as hard, if not harder, upstream at prevention as I work downstream at remediation."

Role Conflict

More than a decade ago, Wylie (1969) reported that reading specialists, classroom teachers, and school administrators hold conflicting perceptions of the reading specialists' major functions. On the one hand, many reading specialists, dissatisfied with the results of remedial teaching, prefer to leave what Stauffer (1967) called the bottomless pit of remediation, to do staff development and consulting to prevent reading failure.

Meanwhile, many administrators and teachers continue to prefer that reading specialists work only as remedial teachers (Pikulski and Ross 1979). There appears to be little doubt that many reading specialists manifest a classic role conflict where different and sometimes conflicting role expectancies exist for the same position. For example, Mangieri and Heinburger (1980) reported that school administrators perceived instruction and diagnosis to be the reading consultants' most important role while consultants preferred an inservice and resource-person role.

Funding Patterns and Preferred Roles

While the intensity of this conflict varies from person to person and school to school, one basic cause appears to be funding pattern. As Campbell (1979) pointed out, less than desirable reading achievement is a national concern but funds are limited. Money that is available is usually earmarked for direct remedial services to students and little, if any, is available to hire specialists to provide inservice training or to consult with teachers to prevent reading failure. This is unfortunate because remedial reading is, in the words of Otto (1977) "a costly experiment that has failed." Another reading authority, Spache (1981), reviewed thirty follow-up studies of remedial reading and concluded there is little evidence of any long term effects. He contends that remedial reading should be considered

"...as a temporary, supportive effort to help the student deal with his current academic problems, not as a cure or even a preventative for future problems" (p. 403).

In spite of the national concern over low reading achievement, and in spite of the evidence that remedial reading tends to relieve reading difficulties on a temporary basis, there is little evidence that funding patterns will be changed dramatically. There is every reason to believe that in most schools administrators and teachers will continue to find specialists to provide remedial reading services.

Current funding patterns may explain why administrators and teachers expect remedial services, but what explains why some reading specialists prefer a staff development role? For an answer to this question consider what Johnson and Kress (1968) had to say about remedial services, "All too often the basic instructional program of the school has gone unchanged while special reading teacher after special reading teacher has been added to the staff to correct reading disabilities. The result has been that a never-ending and sometimes steadily increasing supply of retarded readers has been guaranteed." On the other hand, Sergiovanni (1969) reported that a chief source of job satisfaction for teachers is knowing that their efforts caused students to achieve. And so the belief that one is making school life more tolerable for poor readers is no doubt satisfying for many reading specialists. However, other reading specialists are convinced that many remedial reading problems are caused by ill-conceived school programs and faulty classroom instruction (Spache, 1976). Otto, Smith, and Hansen (1978) said it this way:

"Many reading problems are caused by teaching practices and instructional materials that for any number of reasons do not provide students with the quantity and/or quality of reading instruction they need to avoid reading problems."

In light of these assertions it seems obvious why many experienced reading specialists are convinced that working with principals and teachers to correct faulty practices in classroom and school must receive as much, if not more emphasis as remediation.

Better Reading Instruction for All Students

Although there is not a widespread movement to use reading specialists to prevent failure (Briggs & Coulter, 1977), there are indications that funding patterns are shifting from remedial services to staff development and consultant services. Educators in Wisconsin are now implementing legislation passed in 1976 that directs each school district to employ reading specialists who will work with teachers and administration to develop, implement, coordinate, and evaluate the K-12 reading curriculum (Vance and Quealy, 1978). The Wisconsin bill is an example of an attempt through legislation to prevent reading failure, contrasting with other states that have set minimum competency standards. Rather than simply testing (after the fact) to determine who

needs remedial help, Wisconsin is providing money for staff development to improve reading instruction for all students. Just as legislation can help promote the staff development function of reading specialists, so can administrators and teachers change their expectations when reading specialists demonstrate their effectiveness as consultants. For example, Bean (1979) reported that in a special project in Pittsburgh—

"the resource role of the specialists was most valued by the teachers in the project school even though the specialist devoted only a small proportion of their time to it. The teachers apparently valued the reading specialists as colleagues who could provide direct assistance to them" (p. 412).

Remediation or Prevention?

For many reading specialists who teach remedial reading there is no role conflict. They are satisfied with their own role expectancies as well as the role expectancies that teachers and administrators tend to hold for them. But other reading specialists do not believe remedial reading is the solution to a national concern. They prefer a staff development and consulting role that seeks to improve classroom reading instruction for all students. In this role they help teachers seek answers to the following questions:

1. How well do we integrate skill development, motivation, and application of reading skills in our daily classroom reading programs?
2. To what extent do we provide independent, pleasurable reading activities and language experiences that promote the use of speaking, listening, reading, and writing activities in our classrooms?
3. What classroom organization and management techniques do we use to maximize our instructional time and the students' learning time?
4. To what extent do our classroom instructional techniques and materials match the students' interests and academic needs?
5. What methods do we use in our classrooms to monitor our instruction in order that our techniques will match student progress?

In much the same manner school-level program decisions are crucial to improving reading instruction for all students; so reading specialists help administrators answer questions about school-wide reading services:

1. Do we have a school-wide stated (written) philosophy on reading/language instruction that promotes articulation among staff?
2. To what extent do our school-wide policies, including academic requirements/standards, strengthen and integrate students' reading?
3. How well do our time allotments match our program goals and allow time for mastery learning?

4. How well does our use of materials, time, space, and staff match the developmental gains of low, average, and high achieving students?
5. To what extent do our curriculum materials match the program philosophy, promote continuity of learning, and fit our students' backgrounds?
6. Do we make optimal use of support personnel and material resources to meet the special needs of students and to support classroom teachers?
7. How well do we communicate about the reading program to parents, community, and new teachers?

What role should reading specialists play? Many will continue to provide traditional remedial services, but there are indications that the consultant and staff development role is beginning to get more attention than it has in the past. This is good news for those reading specialists who have sought to work with teachers and administrators for more than a decade. It may even be better news for children and teachers because reading specialists are demonstrating that not only can they teach students with reading problems, they can also consult with teachers and administrators to improve reading instruction for all students.

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THE I R I: RELATING TEST PERFORMANCE TO INSTRUCTION —A CONCEPT

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Practical diagnostic tests are in constant demand to meet the continuing search for ways to individualize instruction successfully. The informal reading inventory is one such test which is particularly functional in many classrooms because the format parallels the graded feature of a basal series. These instruments can be developed locally and even when an instrument is purchased, testing costs are minimal.

An inventory is usually comprised of word lists and passages which are either samples of each reader level of a basal series, or are samples which are approximations of typical basal reader selections. During testing the reader's ability to maintain control over fluency, accuracy and comprehension are observed and recorded.

The primary function of the informal reading inventory (IRI) is to provide an estimate of a pupil's instructional level. Instructional level is a significant concept because the effects of instruction are said to be maximized for pupils placed at this level (Betts, 1946). Essentially, instructional level is determined by oral reading errors and a comprehension score. The highest level passage which meets the criteria set for accuracy and comprehension is designated as the instructional level. Since passage difficulty relates to the book levels of a basal reader, a pupil would be placed at a specific performance level — first reader level, third reader level, etc.; levels are therefore discrete. To show growth between testings on an IRI a pupil must meet the standards for accuracy and comprehension at a higher reader level than recorded for the previous testing.

In summary, the IRI is composed of a series of graded materials, it is used to determine instructional level, and changes in reading level are recognized only when those changes affect accuracy and comprehension.

Not only is the IRI used for pupil placement, but many teachers and diagnosticians analyze specific types of word errors as a basis for pinpointing instructional needs. Word errors are analyzed in an attempt to make inferences about phonic and structural word attack skills which appear to be unknown. A summary of the types of comprehension questions missed might also be compiled. From these data an instructional program is prepared. One of the missing elements in this approach is a systematic way to prioritize the needs observed.

A different approach to test analysis would be to capitalize on the concept that levels are determined by observing the balance between accuracy and comprehension. Testing in classroom and clinic indicates that as materials become more difficult the reader tends to become less accurate and/or the reader is able to answer fewer questions following the reading of passages. Closer inspection of the performance on an IRI indicates that these two scores do not always decline evenly. Some pupils read with high accuracy, but do not answer the questions equally well. Other pupils read with many errors but answer the questions with little or no difficulty.

When such imbalances occur, the implication is that the pupil has more need for instruction in one area (accuracy or comprehension) than in another. This idea offers a way to order the test analysis sequence.

IRI Profile to Identify Instructional Needs

An imbalance in performance means that one of the two areas (accuracy or comprehension) does not meet the criteria for instructional level and that one area therefore appears to require special instructional attention. Considering the scores for these two critical areas, there are three possible patterns of sub-criteria performance:

1. a balanced decline (Ex. 1); neither performance score meets the criterion for instructional level.
2. an accuracy decline (Exs. 2 & 3); accuracy fails to meet the criterion, while comprehension is adequate.
3. a comprehension decline (Ex. 4); comprehension fails to meet the criterion while accuracy remains satisfactory

Level	Word List	Example 1	
		Oral Reading Accuracy	Comprehension
PP	100%	99%	100%
P	85%	97%	100%
1	70%	95%	80%
2		90%	50%

Balanced Decline

In Example 1, the criteria for instructional level (95% accuracy and 60% comprehension) are met at Level 1, but are not met at Level 2 (Silvaroli, 1979). The next higher passage is Level 2, for which the instructional criteria were not met for either accuracy or comprehension. This is the pattern labeled balanced decline. Since accuracy and comprehension decline equally, there is no evidence that special instruction is required. This type of pupil should continue to profit from the typical reading lesson.

Declining Accuracy: Word Power Weakness

When an area of need is identified, the second step is to determine, if possible, the factors which appear to be associated with this need. Declining accuracy scores can be traced

to at least two sources of instructional need. In the first illustration, inaccurate reading is related to insufficient word power. This type of reader usually misses the new or unusual words in a passage. When such words are pretaught, the reader's performance is reasonably fluent and accurate.

Example 2

Level	Word List	Oral Reading Accuracy	Comprehension
1	100%	100%	80%
2	85%	97%	80%
3	70%	95%	60%
4		89%	60%

The pupil in Example 2 maintains acceptable accuracy for levels where the word list performance is at or above 70%. Typically, as the word list becomes more difficult the pupil reads the corresponding passages with less accuracy. Despite the decline in accuracy, the pupil's comprehension remains adequate.

Declining Accuracy: Contextual Errors

Inaccurate reading may also be associated with the skills and abilities needed to read continuous lines of print. In Example 3 the pupil's accuracy decreases even when the word list performance is quite high.

Example 3

Level	Word List	Oral Reading Accuracy	Comprehension
1	100%	98%	80%
2	95%	95%	80%
3	85%	90%	60%
4	75%		

This pupil attains instructional level criteria where only five % of the "hard" or new words of that level are missed. Furthermore, the reader fails to maintain the instructional level criteria for the next passage (Level 3) even though 85% of the words (Word List) were correctly identified. Because of the power shown during the word list performance, words pronounced in isolation do not seem to account for the low accuracy scores. This pupil usually pronounces missed words correctly when they are pointed out after the reading. Words seem to be a problem only when they are in a contextual setting.

For both types of accuracy problems the word list provides the initial clues to help identify the type of accuracy problem involved. These observations are compatible with Allington's analysis (1978) of word recognition differences in context and isolation.

A further analysis of test data can clarify or modify the initial diagnostic impression. This is accomplished by checking

the recorded responses of the passages read. When word power appears to be the probable source of inaccurate reading, the pupil will most often miss the difficult words in a passage. However, when the "errors" are mainly the "easy" words, or a mixture of mostly easy and some hard words, the pattern supports the profile in Example 3. The pupil apparently knows the words in isolation, but miscalls words when reading in context. Passage analysis should either confirm the impression gained from the word list performance or provide an alternative hypothesis.

Declining Comprehension

Example 4

Level	Word List	Oral Reading Accuracy	Comprehension
3	100%	100%	60%
4	90%	97%	40%
5	85%	96%	20%

Example 4 shows a pattern of poor comprehension scores even though reading accuracy is reasonably strong. The comprehension measure of an IRI provides several clues to the poor performance. Some kind of intervention may be useful to discover possible problem areas. A pupil may read too rapidly to respond to the questions asked. If this is suspected during the testing, the examiner can direct the reader to slow down on the next passage. Then the examiner observes any changes in the comprehension measure for that passage. If poor recall is suspected, the pupil might be directed to retell the passage before the questions are asked. When a pupil can provide a correct answer to a previously missed question by simply being allowed to reread, recall may again be suspected as a primary reason for the initial incorrect response. Question types (factual, inference, etc.) may be a source of help if the questions really assess the type of understanding labeled and if there are sufficient questions to provide a reliable measure. Questions may also be incorrectly answered because of word identification errors. Such difficulties arise when words critical to an answer are missed during the reading. Word errors should be checked against comprehension responses to determine if a false diagnosis-comprehension weakness has been made.

Trial Lessons to Validate Instructional Need

Validation of a pupil's instructional need can be accomplished through one or more diagnostic or trial lessons (Harris, 1961). The purpose of a lesson would be to determine the effectiveness of specified instruction. If word power is initially identified to be the instructional need, the introduction of new words should produce better accuracy during oral reading or oral re-reading than has been previously observed. For this pupil, knowledge of the unknown words would result in more accurate reading and the maintenance of comprehension.

A pupil whose instructional need appears to stem from **contextual reading** rather than **word power** should not profit

from the previous lesson. This pupil may correctly identify most of the new words for the story during the readiness segment of the lesson. Even with word instruction these pupils would not show much improvement in subsequent oral reading. Pupils whose inaccuracies in reading show up mainly during oral reading may need help with phrasing, eye-voice span, return eye-sweep or tracking a line of print. Trial lessons might include instruction in phrase reading, use of line marker, teacher modeling and practice (Cunningham, 1979) to determine which one or combination of aids reduces oral reading errors.

Comprehension problems would be similarly explored during trial lessons. Two types of intervention are possible. Instruction or discussion prior to or following the reading of a selection may improve a reader's ability to respond to later questions.

Preparation prior to reading, such as checking word meanings, relating passage ideas to the pupil's background, having the pupil anticipate story outcomes, or just using the readiness step as a way to help the pupil focus attention on the reading task may be tested by one or more trial lessons. Specific problems may be approached in the same manner. Recall might be improved if the pupil is directed to remember what was to be read, such as in the Guided Reading Procedure (Manzo, 1975). Questions or discussion following the reading might also enhance comprehension. The ReQuest Procedure (Manzo, 1969) can be employed to shape the pupil's ability to ask and respond to specific types of questions.

In its present form the proposed procedure provides a systematic decision-making process starting with a test analysis. Test analysis proceeds from identifying instructional need to the implementation of trial lessons to verify procedures and strategies which assist the reader to overcome the problems observed. The factors involved in determining reading levels (accuracy and comprehension) are used as a guide for judging the priority to assign observed needs. Gain in reading level rather than improvement of specific skills is the focus of the procedure. Implementing this procedure is obviously more complex than simply following a basal lesson plan. However, the procedure can assist the teacher make better decisions about which activities and instructional ideas can be used profitably and for whom.

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READING AND LITERACY— ALIVE AND WELL

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Reading and English teachers often feel as though they are fighting a losing battle. After all, many critics claim that reading is a dying art in the United States. These critics believe that television has replaced reading as a leisure activity and contributed to a general decline in the standard of literacy. There is good news, however, for those who believe in the importance of reading and books. Reading is not dead, and many research findings suggest that the level of literacy and the amount of interest in reading may be higher than ever.

There is considerable data to support the contention that literacy is a healthy and growing part of American life. One nationwide survey found that 95% of the respondents were readers, and that the average American who can read spends one hour and 46 minutes reading each day (Sharon, 1972).

The data from this study also revealed that 87% of the respondents who were employed read as part of their job. These people spent a median time of 61 minutes each day reading at work. Furthermore, many said that reading such things as manuals, written instructions, forms and memos was a very important part of their job.

These figures indicate that reading plays an integral role in American business. Indeed, the figures would seem to suggest that effective reading skills are absolutely necessary for the efficient operation of American business.

John R. Bormuth (1978) went so far as to calculate the costs and benefits of literacy in the United States. According to Bormuth, literacy-related activities accounted for \$272.7 billion in 1972, or 23% of the Gross National Product for that year. He also estimated that the benefits of literacy amounted to at least five times the cost.

Bormuth cited other encouraging statistics indicating that the educational attainment of the average American is higher than ever before. He noted that in 1974, 98.3% of all elementary and secondary-aged students were enrolled in school, and 33.5% of the people aged 18-24 were enrolled in college. Furthermore, in 1976 the median number of years of education among adults over 25 was 12.4 years, an all-time high (1978, p. 127).

These and other data indicate that basic literacy is nearly universal in the United States. For instance, one national study

found an overall adult illiteracy rate of only 3% (Harris, 1970). Another study which analyzed the data from several surveys of functional literacy (that level of reading ability necessary to function effectively in society) concluded that U.S. schools at both the elementary and secondary levels are more effective than ever in helping create an increasingly literate society (Fisher, 1978).

A study of functional literacy skills conducted by the National Assessment of Educational Progress provides more good news about literacy trends in the United States. Seventeen-year-old students were tested for functional literacy skills in 1971 and 1975, and the students in 1975 showed an average gain of more than two percentage points (Gadway and Wilson, 1976). This seems to indicate that American schools are devoting attention to preparing students for the reading requirements of day by day life.

As Dr. Roger Farr, past president of the 65,000-member International Reading Association, stated during a Senate Subcommittee hearing on the teaching and learning of basic academic skills in school, "If basic literacy is defined as the ability to read at a certain minimum level—for example, at a second grade level—then close to 100 percent of the citizens of the United States are literate. Persons who cannot read at the minimal level are those who are hindered by physiological and psychological handicaps." (1979)

Reading for Fun and Profit

Not only are Americans able to read, but the value of reading stretches far beyond the workplace. The findings of several recent surveys support this contention that Americans read for "fun" as well as for "profit." For instance, according to a study of the reading habits of Americans aged 16 and older, 55% of the people surveyed had read at least one book during the six months preceding the study, and these people also read magazines and newspapers (Yankelovich, Skelly and White, 1978). Of these book readers, 45% had read more than ten books within the past six months. Another 39% of the people surveyed read magazines and newspapers rather than books. Only six percent read nothing.

In a similar report, Robert A. Ellis (1978) analyzed reader-ship surveys from the early 1970s and concluded that well over 90% of the people sampled read either books, magazines, or newspapers with some frequency. Furthermore, he noted that many of the five percent who were described in the studies as non-readers were characterized as having visual handicaps, or they were speakers of foreign languages.

The Ellis report also indicated that reading habits are established very early in life. Parents' habits and interests and the success that youngsters experience in the beginning school years were found to be two major factors in developing reading habits. This study also found that children whose parents read to them were better readers and had a greater interest

in books than children whose parents did not read to them.

A national survey conducted by Louis Harris in 1979 for Playboy magazine shows that reading is a frequent leisure time activity for many men. "The Playboy Report on American Men" surveyed men between the ages of 18 and 49 on a variety of topics, including leisure time activities. Respondents were given a list of 21 leisure activities and asked to tell which they did on a regular basis.

Fifty-six percent of the respondents reported reading regularly. Only sleeping, watching television, listening to music at home, listening to the radio, and fixing things around the house ranked higher as leisure activities (1979, p. 52.) The figures show that more men read regularly than play tennis or attend football games. More men read regularly than play poker. In short, reading is highly popular with the American male.

Nearly 70% of the respondents said they had read three or more books during the past year. More than one man in every five (22%) reported reading more than 20 books a year, 12% read 11-20 books annually. Less than a third of the respondents (31%) were characterized as nonreaders or minimal readers, reading two or fewer books per year (1979, p. 55).

The statistics also indicate that reading habits vary according to class status, with the highest percentage of regular readers found among those respondents categorized as upper middle class (income of over \$20,000). However, the study noted, "While the differences between groups are substantial, the generally high interest in reading does indicate that mass education in America has been more fruitful than is commonly acknowledged" (1979, p. 53).

These findings on the relationship between reading and class seem to say one of two things. Reading may be a by-product of socio-economic success in that successful men have more time to read. The other possibility is that reading is a contributing factor in the success of these men. Reading may give them the additional knowledge and insight which allows them to advance in their fields.

The clinching fact to show the popularity of reading and books can be illustrated in dollars and cents. Figures released by the Association of American Publishers, Inc., totalled book sales in 1978 at \$5.77 billion. This represents an increase of 12.6%, or \$644 million, over 1977 sales. The popularity of leisure reading is demonstrated by the fact that the category showing the largest increase was trade books. This category includes novels and paperbacks, the books which are most popular for pleasure reading. Sales of these books totalled \$940 million in 1978, an increase of 16.5% from 1977.

We can see that the level of interest in reading is higher than ever before. Literacy is not on its deathbed--it is well!

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PARENTS AS PARTNERS IN READING THROUGH THE NEWSPAPERS

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Many educators have long recognized the value in using the newspaper to reinforce reading/communication skills. Books and numerous magazine articles have been published on the practicality of the newspaper in the classroom. The daily newspaper lends itself to many interesting and effective activities in the classroom.

The use of the newspaper, however, should not be restricted to the classroom. There are many appropriate activities which parents can conduct at home with their children, using the local daily newspaper. When one considers the fact that sixty-one million copies of the newspaper are printed daily in the United States, it is obvious that many parents subscribe to reading materials which enter the home daily. Parents often ask: "What can I use at home to help my child in reading?" One excellent answer is—the daily newspaper.

Parents can capitalize on the many articles, columns, features and other items contained in the pages of the daily paper. What is needed, to make the newspaper a regular source of reading lessons that are both enlightening and entertaining, is a careful preview of the available items, with a thought for their possible uses. To become skilled at the previewing strategy, a parent might look at the kinds of ideas described in courses-for-parents which discuss lessons and learning in children's books. Some school personnel, working with librarians, have developed courses for parents, to acquaint them with the best in children's literature. This is an excellent idea, because parents who accompany their children to the library or purchase books at the local bookstores are then in a better position to guide their children in their literary tastes.

A similar course can be developed for parents on how to use the newspaper effectively in the home. Many schools have employed the USSR (Uninterrupted Sustained Silent Reading). This same type of program can be used with the newspaper after the dinner dishes are cleared, the TV set is turned off, everyone in the family reads the newspaper. Discussion should first take place concerning which part of the newspaper is read by each member of the family. Children should be encouraged to select different parts of the newspaper on different occasions so that a balanced reading diet can be effected.

What are some valuable activities parents can do with their children which tap the full potential of the newspaper? Here are six activities:

1. Picture Stories—Parents can ask their children to read a story in the newspaper. They can then suggest the children draw a picture to go with the story and to write a cutline (caption) to accompany the picture.

2. Vocabulary Notebook—Parents can encourage their children to keep a vocabulary notebook. Have the children select a word and write the definition of the word, cutting out the small section which shows how the word was used. Each word should be glued into the notebook as an example.

3. Party Fun—Parents can ask their children to plan a party for six or eight people. Ask them to make a shopping list of items in alphabetical order that they will need from the grocery ads in the food section of the newspaper. Children can be asked to classify these ads according to paper goods, confectionary, beverage, etc.

4. Circle the Headline—Children can be directed by parents to circle the words in the headlines that they know. Using these same headlines, parents can select some of the words and ask their children to supply a synonym or antonym for these words.

5. Map It—Parents can have children clip out articles from the newspaper that take place in various locations in the world. Have them attach the article to its location on a map.

6. Fact or Opinion?—Parents can ask their children to read an editorial on a subject of current interest. After they have read the editorial, ask them to underline all the facts with a green crayon and all the opinions with a yellow crayon.

Many newspapers throughout the country—particularly the larger ones—have employed consultants who serve as Newspaper In Education (NIE) coordinators. NIE coordinators plan workshops and develop collateral materials which help teachers use the newspaper effectively. In addition, some newspapers also publish materials specifically designed for children. The most popular is the "Mini Page" which is a weekly insert chock full of appealing items for children. The "Mini Page" is syndicated. Finally, in addition to syndicated material, the following is a sample list of newspapers which publish tabloids and other supplemental material for children:

The Arizona Republic
Phoenix, Arizona
(Weekly page material
written by staff)

Gazette Telegraph
Colorado Springs, Colo.
(Bimonthly tabloids)

The Bradenton Herald
Bradenton, Florida
(Dynamite Kids Page)

The Hartford Courant
Hartford, Connecticut
(Daily column of news
information)

AN EVALUATION OF THE EFFECTIVENESS OF SELECTED READABILITY FORMULAS APPLIED TO SECONDARY TEXTS

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"That's the reason they're called lessons," the Gryphon remarked, "because they lessen from day to day." (Alice in Wonderland)

Everyday, the reality of this statement becomes painfully obvious to many high school students across the nation. The creative ideas implemented in elementary school are not often to be found on the secondary level. Instead, we find subject area teachers who are confident of their ability to uphold the "high standards" in teaching the content of their particular disciplines. Unfortunately, these high standards frequently involve using material which is written on a high twelfth grade or college readability level. With national attention focused on students' declining scores in reading, as well as increased apprehension concerning the number of illiterate high school graduates, not to mention the escalating drop-out rate, secondary educators are beginning to reevaluate their standards of the past and to develop objectives and plans to insure that their lessons are meaningful, challenging, and readable for their students.

Puzzling Research

The first step in this reevaluation process often seems to involve contradictory practices. Teachers try to match the reading scores of their students with the readability levels of their textbooks, the assumption being that text readability is synonymous with a student's reading grade equivalent (Fletcher, 1974; Dauter, 1970; Hagstrom, 1974; Betts, 1966). Thus, matchmaking becomes a snap. However, there is almost no research in the literature to back up the assumption. As a result, it has become increasingly popular to criticize readability formulas as a useful tool for teachers.

A recent study conducted by the author attempted to reassess the assumption that readability and reading scores are synonymous as well as to examine the value of using readability formulas on high school textbooks. A review of the literature revealed that the problem of matching secondary students to suitable instructional materials remains a perplexing one. It was thus decided to compare tenth grade students' reading grade equivalents with comprehension of their assigned textbooks measured by a test prepared by the author. The study then became a challenge to the assumption that a tenth grade student with a tenth grade reading level would be able to comprehend a textbook written for his grade.

Two basic questions were asked:

1. If a student's reading level is matched to the readability

level of a textbook, can he indeed comprehend it?

2. What is the minimal reading level a tenth grader needs to comprehend his textbooks?

To determine the reading grade equivalents of the tenth grade students in the sample, the comprehension section of the Gates-MacGinitie Reading Test, Level E, was used.

Comprehension Test

Comprehension of the students' textbooks was measured by an examiner-made comprehension test consisting of 300-400 word passages from nine assigned English, Social Studies, and Science textbooks. Eight multiple choice questions immediately followed each passage with the independent level of comprehension set at 75 percent.

The examiner-made test questions used to measure the students' comprehension in English, Social Studies, and Science were tested for reliability by using the split-half procedure. A class of thirty tenth grade students exhibiting a wide range of reading levels was used as the sample for the reliability test. The scores for each of these students were divided into two groups, odd-numbered items comprising one group and even-numbered items the other. Using the two scores obtained for each student, a correlation coefficient was calculated using the Pearson Product Moment Correlation formula. These correlations, then, showed the estimated reliability of one-half of the test. To obtain a reliability estimate for the entire test, the Spearman-Brown Formula was applied to the data as a correction. The correlation coefficient for the English scores was .978, for social studies, .955; and .941 for the science scores.

According to Lien's (1967) common guide that assists in interpreting coefficients of correlation, the scores obtained in this study are within the high to very high range. This means that pupils tended to do as well on odd-numbered as even-numbered items and that there is a high degree of internal consistency among the questions.

In order to measure comprehension at a higher level than mere recall, Bloom's Taxonomy of Educational Objectives (1956) and the teacher's manual to Reading for Concepts were used as guides in formulating each item. The eight questions following each passage were arranged in the same order, with each item measuring a specific skill. A brief description of the items follows:

Item 1 - Knowledge of specific facts or recall. This is the most basic level of comprehension—the correct answer is directly stated in the reading passage.

Item 2 - Meaning of word in context. This item attempts to measure vocabulary vital to the meaning of the selection.

Item 3 - Recognition of antecedents and previous references. Here, the reader must be able to locate a phrase or word described in the stem of a question in order to discern the correct response.

Item 4 - Ability to summarize reading material. Related to Bloom's "Interpretation" level of comprehension, this skill requires the student to reorder or view the material in a new way.

Item 5 - Recognition of inferences. The correct response must be chosen from a list of implied details.

Item 6 - Reading for the main idea. This skill relates to Bloom's "Meaning of the Whole" or Synthesis level and involves combining details to determine the central theme of the passage.

Item 7 - Recognition of cause and effect. This question involves a connotative skill in that the student must demonstrate his understanding of the nature of a specific process or problem.

Item 8 - Determination of relevant from irrelevant statements. To answer this question correctly, the student must be able to judge the value of the material he has read.

The readability levels of the textbooks were determined by use of the Flesch Reading Ease and FORCAST formulas. All nine English, social studies, and science textbooks were found to be written on or near a tenth grade level.

Ninety-five percent of the tenth grade students enrolled in general and advanced classes at two large Florida high schools comprised the sample for this study. These four hundred forty-five students were administered the Gates-MacGinitie Reading Test, Level E, and the examiner-made comprehension test by the course teachers.

Findings and Conclusions

The collected data were compiled and analyzed by comparing the tenth grade students' reading grade equivalents with their (examiner-made) comprehension test scores in the areas of English, social studies, and science. Frequency counts of the correct items in each area were compiled for the students included in each of the reading grade equivalents seven through college. Successful comprehension, as previously mentioned, consisted of six out of eight questions answered correctly. The results are shown below.

PERCENTAGE OF STUDENTS COMPREHENDING ASSIGNED ENGLISH, SOCIAL STUDIES, AND SCIENCE TEXTS BY GRADE EQUIVALENT

Gr. Equiv.	No. of Subjects	Percent of Students Comprehending Textbooks		
		English	Social Studies	Science
7th	76	9	21	14
8th	57	12	25	23
9th	50	24	26	20
10th	73	27	59	44
11th	54	61	76	52
12th	71	55	83	72
Above 12	64	76	95	86

The conclusions reached were:

1. When a student's reading level is matched to the readability level of a textbook, the student's comprehension

cannot be automatically assumed.

2. (a) The minimal reading level needed by at least 75% of tenth grade students to successfully comprehend their assigned English textbook is above twelfth grade level.

(b) The minimal reading level needed by at least 75% of tenth grade students to successfully comprehend their assigned social studies textbooks is eleventh grade level.

(c) The minimal reading level needed by at least 75% of tenth grade students to successfully comprehend their assigned science textbooks is above twelve grade level.

The findings imply that the traditional matching of students to materials by selecting materials of the same readability level as the students' measured reading ability is not always an adequate means of meeting individual needs of students. Previous research attempts using textbook readability as the criterion for student comprehension can definitely be challenged by the results of this study.

Discussion

The present study suggests that the popular and simple readability formulas may not be accurate enough to predict the instructional materials best suited to the reading abilities of students at secondary level. However, a possible reason for the discrepancy between the students' reading scores and their comprehension of their texts may not be the inadequacy of the readability formulas but the failure of the Gates-MacGinitie Test to accurately measure the students' reading levels. The examiner-made comprehension test included questions on the inferential and critical levels. Kingston in the 8th Mental Measurements Yearbook (1978) states that a major shortcoming of the Gates-MacGinitie is its preponderance of literal level comprehension questions.

Nevertheless, maybe educators are expecting too much of readability formulas. As Harris and Jacobson (1979) point out, there is still no reliable formula to predict the affective components of text, and surely interest and style are two of the most crucial factors when considering the readability of a given passage.

One of the most provocative research studies regarding the affective component was inspired by Klare (1976) and performed by Fass and Schumacher (1978). The study attempted to measure the effect of motivation on the readability of text. The researchers found that changing the readability level from easy to difficult had no effect on comprehension with highly motivated subjects. Conversely, non-highly motivated subjects performed better on the easy version than on the hard version of the passage. It was concluded that motivation, not readability, was the primary factor in the students' comprehension of text. Practitioners as well as researchers in the behavioral sciences have always had difficulty in quantifying human behavior. Thus, perhaps the most important variable contributing to readability cannot be processed into a formula.

Another reason which may account for the mismatch in this study is the variety and frequency of syntactic patterns found

in all printed material. To date, there is no validated formula that easily categorizes sentences into grammatical strings, although many attempts are being examined as possibilities, notably Botel's Syntactic Complexity Formula. However, Botel et al (1973) cautioned that the formula should be used in conjunction with a vocabulary measure and "should not be considered a precise measuring instrument." (Granowsky & Botel, 1974, p. 33).

Another procedure using syntactic structures called Thought Unit Sentences is being experimented with at the University of South Florida (Lowe, 1979). This procedure is much more individualized than other readability counts and is indeed a "non-formula readability measure."

Perhaps what has been missing all along is more individualized approach to matching students with materials. Readability formulas give us a broad, ball-park range within which to work, but they are simply not enough. The next step is to find out what motivates and interests students, and to discern the kinds of patterns of syntax they use and are most familiar with. This can only be done by involving the student more frequently in the process of match-making and by much trial and error and hard work on the part of the teacher. Researchers are just beginning to explore these areas, but their initial results promise an interesting future for readability experiments and for the teachers who are meeting challenges of frustrated students by constructing lessons that d n't lesson but improve and enrich from day to day.

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IMPROVING TEXTBOOK LEARNING WITH S4R: A STRATEGY FOR TEACHERS, NOT STUDENTS

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Introduction

One of the unchanged melodies of education is the textbook. While we have been busy updating curricula, modifying objectives, and altering content and covers of printed material, our dependency on the textbook itself continues unchanged. Related to our reliance on the textbook is the expectation that students will learn from printed materials. Unfortunately, the ability to comprehend print depends a great deal on the reader's aptitude to deal with the complexity level of the selection. The wider the gap between the demands of a textbook and the capabilities of a student to read that book, the greater the need for direct intervention by the teacher.

To help those experiencing problems with textbooks, many reading-study methods have been suggested to improve comprehension and remembering. Such techniques are known by clever acronyms such as SQ4R (Pauk, 1962), PANORAMA (Edwards, 1973), ESP (Kahn, 1978), REAP (Eanet and Manzo, 1978), PSC (Orlando, 1978), ALERT (Schele, 1980), and—believe it or not—MURDER (Dansereau et al, 1979). Although each claims to possess something unique, most involve an initial survey, reading specified paragraphs, some form of recitation and/or note taking, and a final review.

Clouding their effectiveness as methods are three substantial problems, in addition to a paucity of research available on such techniques. First, relatively few teachers know about or train their students to use such methods. Second, the majority of the techniques are presented as student self-study procedures and not as classroom teaching strategies. The third problem is that students who need reading-study strategies the most, such as those with reading and/or learning difficulties, are the least likely to employ them. Those disciplined enough to use reading-study methods on a regular basis would likely achieve with or without such learning assistance.

The purpose of this article is to introduce S4R, a reading-study system designed to improve comprehending and remembering of information contained in a textbook. While S4R certainly can be utilized as a self-study method similar to those identified above, the focus here will be on S4r as it is used by the teacher in the classroom. The system will be briefly described, followed by initial research findings and implications for use.

The S4R System

S4R stands for Survey/Read/Recite/Record/Review. It can be used in classrooms where students are expected to learn primarily from printed material. S4R is designed to: (1) identify essential information to be learned; (2) articulate that information into several learning modalities (visual, auditory, and kinesthetic); (3) pass information through the memory system several times; and (4) ultimately increase test performance among all students. Many instructors rely heavily on textbooks and frequently assign chapters to be read for homework. Class lectures and discussions are often based on the reading assignments, and the tests used are either provided by the publisher of the texts or constructed by the teacher directly from the text. A large number of teachers use this approach from time to time, and numbers of classes taught in this manner increase at the higher grade levels. Students involved in this type of instruction are the ones most likely to benefit from S4R. Each of the five components is briefly described here.

S Stands for Survey

The SURVEY, also known as preview or overview, should be conducted when a new chapter is introduced or material is presented for the first time. It is an excellent introduction to the topic and provides students with a significant amount of information so that the content to be learned is clearly established. There are three steps to a survey, each conducted and controlled by the teacher.

1. Instruct students to read the title and the introduction to the chapter silently. If the introduction is not identified, select the paragraphs that, in your opinion, represent a good introduction.
2. Since most chapters are subdivided into major sections, point out the first section and direct students to carefully read only the first sentence of that section. After a reasonable time period (when more than half of the class has completed the reading) ask for spontaneous recitation on what was learned from the reading of that section. Solicit statements, definitions, names, events, important vocabulary words, or other information shared by students, in any order. Once completed, the next major section is read silently followed by a short recitation. Continue the procedure until all sections have been surveyed.
3. Finally, have students read the conclusion or summary if identified. If not identified as a heading, locate the final paragraphs that represent closing statements and assign them to be read carefully and entirely.

The SURVEY should take 30 minutes or so, but can be the most important step in the entire process, supplying from 40 to 60 percent of the information needed to pass a typical test. The recitation part of the SURVEY also assists those students with reading problems by translating much of the information into a verbal modality.

First and Second "R" - Read and Recite

Reading and recitation are presented together because they should be taught together in the S4R system. The more often one stops to think or talk about what is read, the better the possibility that the information will be understood and remembered. Pauk states: "There is no principle that is more important than recitation for transferring material from the short-term to the long-term memory" (1974, p. 69).

Suppose you have just completed the SURVEY with a new chapter, and the students are to read a portion of that chapter for homework. In making the assignment, share the importance of reading and reciting with the class. Encourage them to stop after each paragraph to recite aloud what was learned. Remind them that if they are able to recite the information in the paragraph without looking back, they are far closer to understanding and remembering the information than they are when recitation draws a blank - a sure signal that a rereading may be in order. Recitation which follows the reading of a paragraph or two also prevents that terrible discovery many of us experience on a regular basis - the realization that we have been reading page after page without remembering a single word.

The Read-Recite procedure should also be used in class on the following day. Knowing that some followed your directions carefully and many others did not, begin class by directing students to quickly reread the first paragraph or two of the homework assignment. Follow that by asking for spontaneous recitation in the same manner as the SURVEY. Ask: "What did you learn?" Encourage students to share factual information, raise questions, bring up issues, define terms, and clarify or extend what another student may have left incomplete.

Third "R" - Record

The RECORD step is essential when students are expected to master information for a test. Effective recording requires the skill of determining what information is important enough to write down, and what information can be disregarded because it is non-essential. Referring to the process of selecting and rejecting, Pauk states:

To pare the job of learning down to a manageable size, you must decide which facts to master and which ones you can safely ignore...It is impossible to learn...all... details... Any person who tries to do so will become bewildered and will end by remembering less than if he had tried to master less material in the first place ('74,p.63).

In the S4R system the best time to record facts is at the end of each Read - Recite step. As the recitation reaches an adequate conclusion, the teacher should ask one or more of the following three questions:

1. What information from our recitation is important enough to write down?

2. If you were the teacher preparing the test over this material, what information would you include?
3. Are there dates, names, events, formulae, definitions, associations, or concepts that should be remembered?

Give students an opportunity to identify what they believe to be essential information that should be recorded. As each statement is made the teacher should remember two things related to recording appropriate information. First, students should be told whether their statements are important or not. This decision should be based on whether the information will appear on the test. Simple feedback such as "That statement is worth recording!" or "We do not have to record that because..." can accomplish this. Second, since the teacher knows what is on the test, it is important to discuss those items not identified by the students. These two practices are essential if the "selecting" and "rejecting" process is to be learned by students, one of the most important skills one could hope to master.

As essential information is identified the teacher should record the information on the chalkboard or overhead while each student copies the same information in a notebook for the REVIEW step. When the RECORD step is first used in the classroom, the teacher will need to draw out statements through questioning strategies. There will also be many statements that are non-essential for the test. However, students will quickly learn the selecting and rejecting process, and the need for teacher intervention will be greatly reduced.

Fourth "R" - Review

With the completion of a well-controlled RECORD step, each student will have a set of notes that, when reviewed properly, should result in good test scores. The reviewing of notes is the one part of the S4R system that students should control on their own. They should be taught to follow three steps.

1. Glance at the notes to get an idea of what has been recorded. Quickly cover those notes and attempt to recite aloud as much of the covered notes as possible.
2. Uncover the notes and check the accuracy of your recitation. If recitation is accurate and complete, move on to the next section of notes, repeating the process.
3. Continue the covering, recitation, and checking of notes until the material has been mastered.

Initial Research With S4R

Three small pilot studies had been completed on S4R prior to the preparation of this manuscript, each worth sharing and each involving different components of the system. The first study involved 20 students enrolled in a graduate course in secondary reading methods at the University of Houston. After discussion on S4R the students, all secondary school administrators, agree to an experiment using the SURVEY component of S4R. From each of two chapters in the textbook used in the course (Roe, Stoodt, and Burns, 1978), tests were constructed using

multiple-choice, true-false, and completion items taken directly from those suggested in the instructor's manual supplied with the textbook. Each test contained 50 items, each worth 2 points.

The first test, covering the content of Chapter Three, was administered prior to any reading or instruction in the chapter. The scores ranged from 14 to 52 with a mean of 28. The second test, over the content of Chapter Four, was administered immediately after the instructor guided the class through only the survey step of the S4R system, just as recommended - reading the introduction, the first sentence of each paragraph followed by recitation, and the summary of the chapter. The scores ranged from 26 to 82 with a mean of 54, an increase of 26 mean points over the first test.

In the second study, 15 geologists and petroleum engineers enrolled in a rapid reading class taught for a Houston company, agreed to an experiment comparing comprehension scores under three conditions: taking tests (1) before reading the material, (2) after completing the SURVEY, and (3) after completing a SURVEY, READ, and RECITATION. Six 1000-word passages, each containing a test of 10 multiple-choice comprehension questions, were selected from How To Read & Study or Success in College (Norman and Norman, 1976), a text often used in college reading and study skills classes. The tests covering the content of the first two passages were administered without the participants ever seeing the passages. The tests covering the third and fourth passages were taken immediately following a survey, conducted by the instructor. The tests covering the content of the fifth and sixth passages were taken immediately following a survey-read-recitation over the passages. Table 1 illustrates the mean percentage scores for each of the six tests under the three conditions stated above.

Table 1

Mean Percentage Scores on 10-Item Comprehension Tests Taken Over Six 1000-Word Passages Under Three Conditions

Condition 1	Condition 2	Condition 3
No Reading of Passage	Survey Only of Passage	Survey-Read & Recitation
Passage 1 34.1%	Passage 3 50.7%	Passage 5 93.6%
Passage 2 24.0%	Passage 4 65.3%	Passage 6 86.0%
$\bar{X}$ of 1&2 29.0%	$\bar{X}$ of 3&4 58.0%	$\bar{X}$ of 5 & 6 89.8%
N = 15		

The results show that the grand mean scores on the tests taken after the survey ($\bar{X} = 58.0$) were twice as high as the scores on the tests taken without any reading or instruction ($\bar{X} = 29.0$). Furthermore, the difference in mean scores between the survey only ($\bar{X} = 58$) and the survey-read-recitation ($\bar{X} 89.8$) was 31.8 percentage points favoring the latter treatment.

The third study involved a seventh grade boy, named Peter, who was referred to a private clinic in Houston because of low grades in school. The science teacher had reported that Peter's test scores were 55, 40, 0 and 60 respectively, resulting in a grade of "F" for the term.

The tutor assigned to work with Peter agreed to try the S4R system with the science textbook in an attempt to improve the student's test scores. During the initial visit to the clinic Peter brought his science text and showed the tutor which chapter was being studied in the class. The tutor carefully conducted Peter through the survey step over the entire chapter. During each visit thereafter the tutor directed him through the READ-RECITE-RECORD steps of S4R, usually one paragraph at a time, until one section of the chapter was covered. The notes taken from the chapter were kept in a folder until the entire chapter was finished.

Three days prior to the test, the parents agreed to assist Peter in reviewing his notes. Each of the three evenings was spent assimilating as much of the material as possible. The result of this effort was a 90 on the chapter test (later reduced by 10 points as a penalty for talking). The experiment was continued for the next chapter and the resulting score was 95. Preparation for the third test was underway at this writing.

Conclusions and Implications

S4R is not unlike other reading-study methods in most respects. Its acronym is not catchy like ESP, PANORAMA, REAP, or MURDER, and its individual components are not original. The unique feature is that the individual at its control is the teacher rather than the student. This feature, however, makes the approach effective and noteworthy.

While there are many uncontrolled factors in the three studies mentioned that should be considered in future research, the evidence collected thus far certainly should be noted. The administrators in the first study were intrigued enough to re-write their five-year mission objectives to include in in-service in the use of S4R for all teachers in the eight schools under their jurisdiction. Employees in the rapid reading course concluded that the use of the survey alone would triple the material they could cover in the same amount of time, reduce reading of non-essential material, and provide sufficient information through the survey so they could determine whether additional reading may be desirable. The doctoral student working with Peter was excited enough to propose a dissertation study that will be conducted in the eight secondary schools mentioned above

during the present school year.

Students should be taught how to use reading-study methods independently, and those disciplined enough will continue to use them. The most exciting implication of the S4R system is, however, that its use by one teacher can affect the test performance of hundreds, particularly those in greatest need of help. Perhaps it is possible for students to learn reading-study skills because they are led through such systems by teachers who are willing to build such strategies into their regular teaching methods. Most would agree that supervised practice of a special technique is far better than a mere explanation (Stordahl and Christensen, 1956). Is there any better way of teaching students to use a strategy than to use it ourselves?

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BOOK REVIEWS PICTUREBOOKS FOR OLDER CHILDREN

Fredrick Burton

OHIO STATE UNIVERSITY, COLUMBUS

Anno, Mitsumasa. Anno's Medieval World. Philomel, 1980. 49 pps.

Anno has taken a revolutionary discovery that occurred during the Middle Ages—the sun rather than the earth being the center of the universe—and shown its gradual impact on a small medieval village. With his usual imaginative attention to detail (e.g., medieval symbols, tools, and scientific instruments), the author-illustrator has created an authentic graphic masterpiece. (Listed at \$9.95)

Bang, Molly. The Grey Lady and the Strawberry Snatcher. Four Winds, 1980. 48 pps. (\$10.95)

This wordless picturebook tells the unusual story of a grey lady who after buying a quart of strawberries is pursued by a strange looking slimy creature—the Strawberry Snatcher. Because the Grey Lady blends into the pages so well, the creature fails to catch her. The surreal illustrations are complex and the Grey Lady is sometimes difficult to find, the older children always enjoy the search.

Carrick, Carol. The Climb, illustrated by Donald Carrick.

Houghton Mifflin/Clarion Books, 1980. 32 pps. (\$8.95)

When Brandon becomes frightened of the steep rocks while climbing a mountain, his older cousin, Nora, is there to comfort the younger boy. Later, because of an unexpected event, it is Nora who needs and gets help from Brandon. Realistic illustrations done in shades of gold and red complement the credible dialogue in the text and work together to portray the changing emotions of the children.

Chaffin, Lillie D. We Be Warm Til Springtime Comes, illustrated by Lloyd Bloom. MacMillan, 1980. 32 pps. (\$9.95)

Young Jimmy Blackburn is determined to find wood for fuel to keep his mother and baby sister from freezing in a severe Appalachian winter. The first-person poetic narrative and the stark black and white oil paintings effectively reveal the contrast between the harsh, bleak winter and an Appalachian family's love for one another.

Goffstein, M. B. An Artist. Harper, 1980. 32 pps. (\$7.95)

This quiet and spiritually full book reflects Goffstein's view of the role of art and artist in society. The story follows an artist as he sets up his easel and paints in order to recreate the beauty of nature. The delicate watercolors and poetic text combine to make an abstract subject accessible.

Lobel, Arnold. Fables. Harper and Row, 1980. 41 pps. (\$8.95)

This Caldecott Award winner is a delightful collection of twenty original fables written and illustrated by Lobel. Readers will enjoy the humorous antics of a variety of animals in stories like "The Crocodile in the Bedroom" and "The Hippopotamus at Dinner." The full page illustrations showing the animals in preposterous situations add to the wit and charm of the tales.

Macaulay, David. Unbuilding. Houghton Mifflin, 1980. 80 pps.

Set in the not so distant future of 1989, the story tells of an Arab oil magnate who buys the Empire State Building with the idea of having it taken apart, shipped, and reassembled in the Arabian desert. A construction company, Krunchit and Sons, is hired to do the job. Macaulay then guides us through the page-by-page dismantling with pen and ink drawings that expertly depict unique structural perspectives and carefully detailed cross sections. The author-illustrator's satiric style and wry sense of humor can be appreciated by children in the upper elementary and middle grades. (List price - \$9.95)

The following pages contain the tables of information which should accompany the study published in the Fall issue of *READING HORIZONS*, under the following title:

WHEN READING INSTRUCTION BEGINS AND IS TESTED IN 25 COUNTRIES THAT USE AN ALPHABETIC LANGUAGE SYSTEM

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Note— This research project was funded by the Office of International Research, Southern Illinois University, Carbondale.

The Author expresses her gratitude to the Office of International Research, Ms. Susan Tong, research assistant, and to the 237 educators and translators whose gifts of time and expertise make the project possible.

Table 2

Skill Categories Represented in Subtests as Ranked by Total Number of Appearances in the 41 Tests of the Research Study and by the Sub-Categories of Skill Tasks Used to Assess Each Specific Skill

I. Oral Expression and Vocabulary Development (No. of Appearances = 24)		
Name, match, identify colors, body parts, shapes & familial items	(5)	
Picture vocabulary tests	(4)	
Naming words	(3)	
Repeating words heard	(3)	
Selecting pictures belonging together	(2)	
Syntactic competence test	(1)	
Reading paragraphs orally	(1)	
Verbal expression	(1)	
Grammatical closure test	(1)	
Repeating words seen	(1)	
Receptive & expressive use of syntactic forms	(1)	
Telling a story	(1)	
II. Visual Discrimination (Total=23)		
Visual discrimination of shapes	(7)	
Visual closure & orientation	(5)	
Figure-ground discrimination	(3)	
Recognition of inverted figures	(2)	
Attending to details in pictures	(2)	
Recognizing large objects	(1)	
Recognizing reversals of shapes and letters	(1)	
Form constancy test	(1)	
Completion of shapes	(1)	
III. Auditory Discrimination (Total No. of Appearances = 22)		
Recognizing beginning sounds	(6)	
Recognition of similarity between two words using auditory stimuli	(3)	
Recognizing ending sounds through rhyme & picture match	(3)	
Auditory discrimination of letter sounds in isolation	(3)	
Sound blending	(2)	
Discrimination of ending sounds	(2)	
Auditory association	(1)	
Auditory closure test	(1)	
Discriminating medial & final sounds	(1)	
IV. Eye & Hand Coordination (Total No. = 22)		
Copy shapes	(10)	
Copy words	(5)	
Eye/hand movements	(2)	
Copying words with both visual & auditory stimuli	(1)	
Eye-hand-body movements	(1)	
Constructing geometric patterns with cubes	(1)	
Va. Listening Comprehension (Total No. of Appearances = 16)		
Following directions	(5)	
Complete heard sentences	(5)	
School language & listening	(2)	
Listening & drawing inferences	(1)	
Correcting grammatical errors	(1)	
Receptive and expressive use of syntactic forms	(1)	
Answer questions of story heard	(1)	
Vb. Meanings of Words & Phrases (Total = 16)		
Basic concepts (top, left, etc)	(5)	
Label pictures with words	(3)	
Context (pupil chooses picture which supplies an element missing in oral context)	(2)	
Context with auditory clues	(2)	
Defining words seen	(1)	
Writing capital letter to complete name of picture seen	(1)	
Drawing picture of written word	(1)	
Concept of word/letter/number	(1)	
VI. Comprehension of Number Concepts and Functions (Total No. = 14)		
Number concepts	(4)	
Number recognition	(2)	
Counting & money recognition	(1)	
Completing mathematical word	(1)	

TABLE 3

People Who Have Predominant Influence
Upon Decisions That Are Made
Concerning Beginning Reading Assessment

Bannatyne, Alex (3)	Language Development Research of Stockholm (7)
Barbe, Walter B. (1, 2)	Lie, Laura (3)
Bereiter & Engleman (15)	Leimar, Ulrika
Bremer, N.	Lauria, A. R. (8, 1)
Brewer, D. (9)	Mackowiak, Antoni (12)
Brown, Carl (1, 2)	Malmquist (6, 7, 9, 1)
Catterson, Jane (2)	Meaker (3)
Cazden, Courtney (1)	Monroe (1, 2)
Colin & Baumetier (14)	Murphy, M. (1, 2)
"The Time to Learn to Read" (in translation)	Montessori (1, 2)
Doll, Ilg & Ames (3)	Ollila, Lloyd (1, 2)
Dehant, A. (14)	Parisod, A. (Thesis on prere- quisites for success in read- ing (in translation) (11)
Downing, John (2, 1, 4, 13)	Piaget, Jean (1, 5, 10, 2)
Duffy, Gerald (4)	Rommedveid, R. (6)
Durkin, Dolores (1, 2, 3)	Sherman, George (4)
Durrell, Donald (2)	Skinner, B. F. (1, 5)
Fagan (5)	Smith, Frank (1, 5)
Falski (1, 12)	Sonnkus, MCH (3)
Freudian Psychoanalysis (1)	Stander, G.
Frostig, Marianne (3, 4)	Thackray, D. V. (4, 13, 1)
Gjessing & Horden (6)	Venezley (1)
Gjessing-Hans-Jorgen (6)	Verksamketan, Fand, Larakogskolan, Goteberg (7)
Guthrie, John (1)	Van Allen, R. (1, 2)
Hougaard, Ruth (8)	Walker, L. (5)
Human Science Research Council (3)	Warner, Sylvia-Ashton (1, 2)
Inizan, A. (14)	Wepman, J. & Berry (3)
Jansky & de Hirsch (5)	Witting, Maja (7)
Johnson & Myklebust (3)	Zborowski, Jan (12)
Keport, Newel C. (3, 4)	
Zinz (2)	

Key to countries represented by numbers as follows:

1 U.S.A.	9 Finland
2 Canada	10 Argentina
3 South Africa	11 Switzerland
4 Guatemala	12 Poland
5 Newfoundland	13 England
6 Norway	14 Belgium
7 Sweden	15 Virgin Islands
8 Denmark	

Table 4

Conditions surrounding the beginning reading programs: (1)most common age of entrance; (2)age at which formal instruction begins; and, (3)pupil-teacher ratio of the class in which instruction occurs

Continent Country	Age of presch. entrance	Age at Which Formal Instr. Begins	Pupil-Tchr Ratio, Rdg. Instr. Begins
Africa Kenya	7	7	32 / 1
S. Africa	3	6	39 / 1
Uganda	3	6	32 / 1
N. Amer.			
Canada	5	6	19 / 1 **
U.S.A.	3	5	24 / 1
Virgin Islands	4	6	23 / 1 **
S. Amer.			
Argentina	3	7	19 / 1
Asia			
China	3	7	data NA
Israel	5	6	14 / 1
Japan	3	6	25 / 1
Thailand	4	7	30 / 1
USSR	3	7	18 / 1
Europe			
Austria	3	6	21 / 1
Belgium	3	7	21 / 1*
Czechoslovakia	3	6	20 / 1
Denmark	5	6	15 / 1
England	2	5	22 / 1*
Finland	5	6	19 / 1
France	3	6	22 / 1
Italy	3	6	20 / 1
Luxembourg	4	6	19 / 1
Netherlands	4	6	29 / 1
Norway	5	7	17 / 1*
Poland	3	7	22 / 1
Spain	2	6	23 / 1
Sweden	3	7	17 / 1
Switzerland	4-6***	6	data NA
West Germany	3	7	data NA
Yugoslavia	3	7	23 / 1*
Australia	4	5-6	26 / 1
Oceania			
Guam	4	6	23 / 1**

* As reported in UNESCO Statistical Yearbook

** Includes ratio of preschool population

*** Entrance age varies from one canton to another

Table 5

Minimum Number of Kindergarten, Nursery Schools and other Pre-primary Education Institutes, % of Female Teaching Staff and % of Females Enrolled of Total Preschool Population from 1968-74

Total Enrollment	Year of Survey	Number of Institutions	Number of Teachers	% Female Teachers	% Female Students
CANADA					
226,979	1965	DNA	5331	96	49
349,204	1973	DNA	DNA	97	50
PANAMA					
4,825	1965	99	152	100	50/60
10,249	1973	185	376	100	50/43
U.S.A.					
2,645,000	1965	DNA	DNA	DNA	50/19
3,096,000	1974	DNA	DNA	DNA	w/17
ARGENTINA					
146,574	1965	2,792	7,510	99	50/32
	1974	4,890	16,084	100	50/32
ISRAEL					
93,386	1965	2,642	3,063	99	48/0
144,151	1973	4,255	4,856	100	49/0
JAPAN					
1,146,306	1965	8,604	50,563	85	49/73
2,129,471	1973	12,185	88,316	87	49/76
2,233,086	1974	12,685	90,252		
SAUDI ARABIA					
2,165	1965	7	DNA	DNA	97/100
9,064	1973	52	259	94	37/88
THAILAND					
69,223	1965	319	2,828	92	47/63
166,865	1973	DNA	DNA	DNA	48/57
AUSTRIA					
107,240	1967	1,875	3,780	100	49/37
141,103	1973	2,421	4,346	99	49/36
BELGIUM					
443,208	1965	5,251	15,435	100	49/63
439,504	1973	DNA	DNA	DNA	64/57
CZECHOSLOVAKIA					
330,084	1965	7,569	23,467	100	DNA/0
414,433	1973	8,624	31,077	100	50/0
DENMARK					
3,739	1965	DNA	DNA	DNA	47/13
41,356	1973	1,504	DNA	97	49/7
FINLAND					
21,453	1967	341	1,137	100	49/0
25,464	1972	500	1,700	100	50/0
FRANCE					
1,778,404	1965	7,445	33,009	100	49/15
2,445,250	1973	11,576	50,985	100	DNA/14
GERMANY, DEMOCRATIC REPUBLIC					
511,045	1965	9,889	32,540	100	DNA/0
694,492	1974	11,542	50,421	100	DNA/0

Table 5 (cont'd)

Total Enrollment	Year of Survey	Number of Instit.	Number of Teachers	% Female Teachers	%Female Students
ITALY					
1,335,020	1965	19,257	39,820	100	49/64
1,605,314	1973	25,870	55,476	100	49/78
LUXEMBOURG					
5,642	1965	DNA	191	100	49/w3
8,604	1973	DNA	372	100	49/DNA
NETHERLANDS					
457,130	1965	5,322	13,557	100	49/78
505,989	1973	7,108	DNA	100	49/73
NORWAY					
8,828	1966	435	1,341		
12,991	1971	733	2,504		
POLAND					
596,681	1965	13,093	27,500		0
1,094,344	1974	31,688		95	0
SPAIN					
584,380	1965		14,123		51/48
853,322	1974		23,104	99	51/62
SWEDEN					
72,445	1965	1,874	2,482	100	
141,043	1972	5,229	17,289	100	
SWITZERLAND					
130,000	1968				
ENGLAND & WALES					
34,384	1965	648	1,416	100	48/17
48,059	1972	672	1,813	99	48/12
YUGOSLAVIA					
87,422	1965	1,203	6,837	95	48/0
147,626	1972	1,860	12,610	95	49/0

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Copyright, 1970
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