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READING HORIZONS

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"The Pain We Must All Share"

EDITORIAL COMMENT

We feel it necessary to report to our readers on the matter of the altered format. We also take this occasion to thank the nearly one hundred subscribers who responded quickly to our request for help. Were it not for your immediate material aid, HORIZONS would be saying its farewells now. You came to the rescue, and we are deeply grateful.

To trace the reasons for our financial crisis, we need only to note that Michigan's economy has long depended heavily on automobile manufacturing and sales. "When Ford catches cold, Michigan sneezes" was a flip way of recognizing that fact, each time model changes caused seasonal lay-offs. The precipitous slump of 1980 resulted in a sudden drop in state support of educational and social programs. HORIZONS' deficits, which had been absorbed by the College of Education, now became an intolerable burden. The source of support disappeared in January. We were told to make the journal pay for itself or phase it out. As simple as that.

There was a brief period of totally disorganized response, such as the failing student suffers when told to read aloud to the class. We turned to our regular subscribers with the news and a call for assistance. Within a few weeks, we received money to deposit in the journal's operational fund, and some warm words of encouragement that turned an insurmountable problem into an intriguing challenge.

We believe this journal is important to the field of teaching reading, and we have many friends who have demonstrated their agreement. We pledge to continue to publish your excellent articles, and to continue to play a part in educating teachers and administrators about beginning reading, theory and practice, and the improvement of reading skills at all levels.

To accomplish solvency and keep our pledge, we have had to make certain basic changes. We can no longer enjoy the luxury of typesetting services. Making the journal camera-ready in this office will cut cost of production by almost 30%. We must also set future subscription rate at $10 a year, and try to increase number of subscriptions (advice I had not heeded "Raise your rate—you're giving the journal away!).

Again, we thank those subscribers who sent checks and their sincere wishes for our success. You will always occupy a special place on our Honor Roll. With your kind of help, RH faces the future with confidence.
In order to understand how reading works and what reading is, it is necessary to look carefully at what readers try to do when they read. Many teachers have noticed that when pupils are confused by the meaning of a word or phrase, they will make a guess at it, sometimes to themselves, or publicly if reading orally. On what are these guesses based? Kenneth Goodman (1967), in his research on the nature and quality of children's predictions about the meanings in their reading called reading "a psycholinguistic guessing game". Prediction has become a more descriptive word than 'guess' about what the reader is doing, since he/she is making predictions on some rational basis. What is the nature of this rational basis for a reader's predictions?

Smith (1978) and others propose that reading is a psycholinguistic process which implies that the reader is continually seeking meaning by a process of reducing uncertainty. Smith (1975) also has noted the important role of prediction in reading. Prediction, he stipulated, is based upon the simultaneous use of at least three major cuing systems; the graphophonic, the syntactic, and the semantic. According to psycholinguistic theory, the reader uses previously internalized knowledge from these three systems in order to make predictions about the meanings embedded within the visual array on a page of print. Y.M.Goodman and Burke (1972) have demonstrated how the reader's attempts to predict meanings can be categorized by types of miscues, e.g., whether the prediction matches both the letter and sense of the writer's intent. To the extent that there is not an exact match, a miscue results. Y.M.Goodman and Burke have shown how to analyze the specific variations and thereby obtain insights into the reader's psycholinguistic processes in attempting to predict meaning(s). Tovey (1979) has shown
that many teachers do not adequately understand the concept of "miscue". They apparently think that readers cannot make miscues which may be graphophonically, morphologically, or syntactically variant and still be semantically acceptable; that is, conforming in spirit if not to the letter of the writer's intent in reducing uncertainty to obtain comprehension. Tovey concludes by noting that:

Miscues emerge as a reader becomes involved in predicting the thoughts of an author in light of his own particular thoughts and language patterns. Miscues enable a reader to apply his implicit knowledge of language (syntax) and his perceptions of his world (semantics) to the task of decoding print into meaning.

If teachers have difficulty in accepting the concept of "miscue", and correspondingly, the psycholinguistic view of the reading process, it may well be due to an inadequate understanding of the concept of prior knowledge on which much of the psycholinguistic view is based. Prior knowledge involves a reader's own language and his/her storehouse of facts and concepts. It is the psycholinguistic view that the reader uses this storehouse of language, facts and concepts to process language and comprehend meaning. Psycholinguistic research is concerned with the nature of this knowledge and the ways it is used in the communication process. What is prior knowledge then, and how is it used in making predictions in reading?

The Knowledge System and Ways of Knowing

Philosophical discussions about the character and growth of human knowledge date from classical antiquity. It is not the purpose of this paper to retrace these steps, but a look at recent developments may be in order. According to Hamlyn (1978), scholars have recently clustered around three positions; 1) empiricism, 2) nativism, and 3) developmental, biologically grounded structuralism espoused by Piaget.

Empiricism supports the idea that the "general" comes to be known by induction from instances of particular cases. These particular cases make themselves felt on human experience through the senses and ultimately, so goes the theory, become human knowledge. Associationist and behaviorist theories have provided a basis of support for empiricism in the past since the frequency and repetition of experiences were judged to be essential in the development of empirical knowledge. Indeed, B. F. Skinner (1958) proposed an associationist/behaviorist theory of language acquisition and development. In attacking Skinner's position, Chomsky (1959) argued for nativism--derived from the
eighteenth century rationalists and Descartes—proposing that human beings are born with "blueprints" of the language system and other systems of knowledge already existing in the brain. These "blueprints" pre-program humans to learn language and other forms of knowledge without the necessity of frequent repetition and reinforcement. Piaget (1915) has rejected both nativism and empiricism in favor of structuralism or what he refers to as "the third way." For Piaget, the human organism is always a self-regulating organism operating within a dynamic world of experience. Through the processes of accommodation, assimilation, and equilibration, the child interacts with the environment and thereby develops knowledge, intelligence, language, and moral character—more or less simultaneously.

Although it is certainly not possible to resolve the distinctions and contrasts between and among these theories of knowledge, it is an observable fact that the child does develop a knowledge system which he/she immediately puts to use in building meanings in the world. It is clear also that educators generally are increasingly interested in the work of Piaget. In addition, much of the now extensive research in child language acquisition supports a dynamic view of learning— with the child's growing sensitivity to language functions within the context of situation being a critical aspect of the language learning process. Piaget and the nativists seem to agree that the child uses knowledge to generate new knowledge, and the store of new knowledge integrated with what has come before becomes the prior knowledge for future growth.

Applications of Prior Knowledge in Reading

Beginning readers enter school with a vast supply of prior knowledge which they constantly use in building their picture of the world and learning from experience. Many textbook writers and editors assume that beginning readers have little knowledge of language or of print since so many series are written to "forcefeed" children bits of information about sounds, letters, and words. In actuality, most children already have considerable prior knowledge of the three cuing systems mentioned above. Here are some examples of the kinds of prior knowledge which children have on entering school, which they can and do use in making predictions:

The Graphophonic Cuing System

1. Most children have developed considerable competence in using their phonological systems by age 5. For example, most children of this age can produce all of the phonemes (significant sounds) of English and use them in context.

2. They are able to combine phonemes into a significant
number of free and bound morphemes (words and parts of words). For example, many have learned how to use derivational morphemes like un- and dis- to derive words like unselfish and dislike.

3. They are able to use inflectional morphemes like -s, -es, -d, and -ed to produce and comprehend plurals and past tense in English.

4. With regard to print, the child is only beginning to develop a consciousness of print and the fact that sounds can be represented by graphs in an array of print and that graphemes are printed units of meaning in the same way that phonemes are sounded units of meaning. Awareness of this sort comes from seeing printed symbols on television, on street signs, and in the supermarket, for example.

5. Some children will come to school already knowing that print in English orthography is arranged from left to right and that letters and words have certain distinctive configurations.

6. Some children arriving at school already have the knowledge that some letters occur more frequently in English orthography than others ("e" in contrast to "u" for example).

7. Some children will already know when they arrive at school that some letters always precede or follow other letters ("q" and "u" for example).

The Syntactic Cuing System

1. Most children come to school with some very precise knowledge of the syntactic system of their language. For example, they know that words have varied functions in sentences and therefore certain words or classes of words normally precede or follow other words ("the" usually signals a noun and therefore precedes it).

2. By the time they come to school most children have progressed through "telegraphic speech" or the two and three word grammar stage of language acquisition, and can construct many types of sentences which sound like those of adults. They can "transform" sentences into questions (Can I have some milk?) and passive constructions (The man was bitten by the dog.), and many have developed the competence to embed one sentence within another.

The Semantic Cuing System

1. Function and situation link the syntactic system with the semantic system for the language user, since it is impossible to ask for "milk" at all unless one has developed the sense of "milk" in the real world, and an understanding that a sound or printed symbol is a reference to that sense. The semantic system incorporates the many meanings that a child knows and is one with the child's knowledge of the world. Neisser (1967) has shown how cognitive structure develops and how concepts are interrelated within
a vast network of meanings. Within such a structure, the child's meanings of "drink" "milk" "wet" and "food" are stored and cross-referenced with cognitive structure—another term for the semantic system.

2. When a child learns meanings he/she learns the pragmatics of meanings or where and when to use the meanings in the real world. Learning to suit one's language to the occasion is an important part of learning how to be meaningful ("is there any milk left?" actually means "May I have some milk?" or "Give me some milk" depending on situation.

At this point it is important to state the examples of prior knowledge given above, in fact, most of the knowledge within the child's cognitive system is implicit knowledge. It is knowledge that the child is using and developing but that he/she is unaware of possessing. Therefore, the child will be largely unable to answer questions about this knowledge, but will be able to use it instantaneously in communicative situations. As the child in school becomes a reader and writer, this implicit knowledge about language and print is used continuously to make predictions about the meanings encountered. New meanings are therefore integrated with old in a continuous process of growth and learning.

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Growing up in a family with a school-aged brother and sister and with parents who are teachers usually means that a younger child will be exposed to a wide variety of books and various reading materials. This was true for our five-year-old son, Billy.

From the time he was about nine months old, family members read aloud to Billy, looked at and talked about books with him. He owned numerous books and frequently visited libraries and bookstores to choose those which interested him. When he was two, he had a warm, grandmotherly babysitter who not only read and talked about books, but also taught him the names of the letters. Later, he attended nursery school where he learned "sounds", and he came home "ffffing" and "ssssing." For some time, he had been reading familiar words and phrases in his environment such as food labels, street signs, store names and family names. He showed interest in writing by labeling pictures he drew and by carefully writing notes to his grandma. Having heard books read aloud, Billy was encouraged to "read" books by telling the story as he looked at and turned pages. He particularly enjoyed "reading" riddle books, anxiously hoping that the listener would not know the answer, so that he could tell it.

Billy talked about other children in his kindergarten class who were reading, but he claimed he did not know how to read. Despite knowing the letter names and a few sounds, and despite the "reading" Billy was doing, he did not think of himself as a reader.

Three Billy-goats Gruff - Version One

One day I brought home a copy of the Three Billy-
goats Gruff (1968) from the library. The little book, printed in England, was exquisitely illustrated. The artist had captured the curiosity and determination of the goats and the ugly, mean characteristics of the troll from an unusual variety of vantage points.

The language used by the author was as rich and colorful as the illustrations:

There was a wooden bridge over the river. Under the bridge there lived an ugly troll. People were afraid to cross the bridge because of the troll. Everytime he heard footsteps on the bridge, he popped out and gobbled up the person who was trying to cross. (page 10)

The book contained many repetitive sections:

Out popped the troll's ugly head. He was so ugly that the eldest Billy-goat Gruff nearly fell down with fright. (page 38)

The dialogue between each goat and the troll followed the same pattern. "Who's that trip-trapping over my bridge? roared the troll." Each goat, in turn, would identify himself and explain that he was going to the meadow to make himself fat. "Then I'm coming to gobble you up! roared the troll."

Even the size of the print contributed to the increasing drama of the story:

"It's me, the biggest Billy-goat Gruff," he bellowed...
And he stamped his feet even louder; TRIP TRAP, TRIP TRAP
BANG! BANG! BANG! BANG! (p.40 & 42)

Strategies Billy Used in Learning to Read

From the first time this story was read aloud, Billy begged us to read it again and again. Soon, he took the parts of the various characters by reading the dialogue of the goats or the troll when we came to that section. The sections grew longer and longer. Then he took the book and began to read to himself.

Billy translated various words and phrases into his own language. For example, the text said, "I'm coming to gobble you up!" Billy read "I'm coming to eat you up!" He was not "corrected". It seemed obvious that he approached reading from the standpoint of meaning and his understanding preceded his reading ability. And we noted that as he became more proficient (i.e., becoming more aware of the significant features of the print while continuing to read for meaning), he read, "I'm coming to gobble you up!"
He sometimes asked us to tell him a word or phrase he didn't know. We suggested he skip that part, read to the end of the sentence or section. He was to think of a word or phrase that would "make sense" or "sound right" in the part he had omitted. He also inserted words or misread words which resulted in the meaning being lost or distorted. We waited, saying nothing. He would soon say "Hey, that doesn't make sense," and reread to find where he got off the track.

Excited and fascinated by this story, Billy worked diligently at learning to read the book. He worked under his own direction, receiving assistance only when he requested it.

After several days his attitude about himself as a reader had changed considerably. He told his kindergarten teacher that he could read! He also told her that he was ready to begin the books the other kindergarteners had been reading. His teacher shared his excitement and she began to send home pre-primers for him to read to us.

A week or so later a graduate student at the university where I teach, herself a kindergarten teacher brought to class a variety of puppets and masks she had made for her students. Among them were the three billy goats and the troll, fashioned with cardboard horns and yarn beards of grocery bags which slip over one's head. I immediately borrowed the set and could hardly wait to show the characters to Billy. Excitedly, he placed the biggest billy goat's mask over his head, and cast me as the troll. "Who's that trip trapping over my bridge?" I asked. "I'm coming to gobble you up!" Billy, in character, "Oh no, you're not! It's me, the eldest Billy-goat Gruff!" and on we went.

As Chomsky's (1972) research indicated, young children who have been exposed to a variety of language through books of all kinds being read aloud and later read personally, are more able to comprehend and use language at higher linguistic levels than children who have not had these experiences. Billy, at five years, had acquired the ability to appropriately use "eldest" in context. This is a word rarely used orally today and a word he probably would not hear in conversation. He experienced this word through hearing it in the story, later reading it for himself. When he encounters the word in the future, it will present no difficulty.

Three Billy-goats Gruff - Version Two

Several weeks later one of the books brought
home from school for nightly reading was The Three Goats, a "getting ready to read" book, according to the publisher (Follett, 1963). The following is an excerpt:

See the goats.
One, two, three goats.

Goats can run and jump.
The little goat said, "I want something."
I want to find something.
Away I go."
See the goat go.
The little goat can go up.

The book continues in this manner and only with the aid of illustrations can one determine it is a version of The Billy-goats Gruff, perhaps written with the intention of providing an "easy" book for beginners.

Billy, understandably, did not recognize the story as being similar to the one he knew so well. And he could not easily predict the sequence of words and sentences because the language patterns were not those he had heard or used before. The story didn't excite or capture Billy's interest enough to make it worth his effort to learn what it was about or how it ended.

Qualities of Good Books for Beginning Readers

Why did the former version of the Three Billy-Goats Gruff become Billy's "bridge to literacy" (Kohl, 1973) the book through which Billy became a reader in his own eyes? What qualities did it have that so interested him that he became determined to learn to read it for himself?

The book had a strong sense of story, a plot which captured interest while building action and suspense. (Billy had asked if he could have more books with "brave parts.") The plot was meaningful, logical and sequential, with a definite beginning, a climax and a conclusion. Current investigations on the relationship between story plots and children's comprehension indicate the importance of story logic and order for beginners (Stein, 1979).

The author's language was forceful and stimulating, evoking images in the minds of readers and listeners. The words, phrases and sentences were usually similar
to those most children have heard or used before. They were not "watered-down" words—an adult's idea of something made easy for children to read. Familiar language patterns are easy for children to read because they can better predict the sequence and the meaning.

Use of meaningful, repetitive sections of text was another element employed to aid beginning readers in predicting the next part of the story. After hearing the story read aloud, children can anticipate the repetitive sections and "read" those parts the next time the story is read. The Three Pigs, The Little Engine That Could, The Gingerbread Boy, and Alexander and the Terrible, Horrible, No Good, Very Bad Day are other examples of stories with highly predictable and repetitive sections.

Additionally, illustrations, delightfully integrated with the story, contributed toward capturing the interest of the reader. Unfortunately, too many books on the market have superb illustrations that accompany stories with little content.

One is tempted to assume that choice of print and graphic appearance were an important element in encouraging the beginner. Fairly large print was used, with wide spaces between lines and never more than eight lines per page. The amount to be read never seemed overwhelming. Importantly, the change in the print size and the use of capital letters enhanced the drama and the meaning of the story.

Each of the qualities of books mentioned above also contributes to another important step for children learning to read naturally. Most natural readers go through a phase of memorizing books which appeal to them. Hoskisson (1979), pp. 492-3) states, "This memorization aspect of children's knowledge of the written language appears to be a very important component...all children seem to go through this phase of constructing their knowledge of written language when learning to read naturally...Memorization, storing the meaning of the story, appears to be a very important phase in learning to read by reading." This phase may be a necessary step in the natural learning process of becoming an independent reader.

Conclusion

Smith (1973, p. 195) advocated, "The only way to make learning to read easy is to make reading easy." It is hoped that the example of Billy's learning to read will provide an illustration for teachers of how to make reading easy. Billy learned to read with
a book that was so interesting that he could hardly put it down. Similarly, teachers can make learning to read easier by knowing the interests of the children in their classrooms, and providing books and other meaningful materials which stimulate those interests. Smith admonished us to "Respond to what the child is trying to do." Billy learned to read because, in addition to having an interesting book, he had people around him who reacted to his efforts by providing information when he requested it. Teachers can likewise respond to children's efforts through observation, interaction, feedback and encouragement. With books which are full of meaning, stimulating, well-written, and with a sensitive response from teachers, children can learn to read naturally.

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HELP THEM TO SPEAK, WRITE, AND LISTEN—THEY’LL BE BETTER READERS

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While observing beginning readers in both American and British schools, I have noted that the better readers also appear to be the better speakers, while the child having difficulty with reading also tends to be less verbal and less explicit in oral language activities. This observation sparked my interest in the role of oral language in the reading process.

The merging of common interests among psycholinguists, developmental psychologists, and reading specialists has resulted in a recognition of the relatedness of all language arts, and a special interest in the role of oral language in the reading process. These concerns are particularly relevant for the teacher of elementary reading, for if current research findings and theoretical trends are correct, proficiency in oral language influences the child's success in reading activities. This should become a major component of reading readiness and beginning reading instruction. The following discussion will consider the role of oral language in reading and implications for the classroom teacher.

Oral Language, Reading, and Thinking

The relationship of oral language to reading becomes apparent if the two language abilities are viewed in relation to cognitive development, and if reading is understood as a thinking process involving reconstructing meaning from print.

Children develop cognitively as their perceptions of the world add to or change the interrelationships among the cognitive categories they have already constructed in their minds. Language plays a vital role in this process. Language directs the child's
attention, influencing perceptions, and aiding in organizing relationships among cognitive categories as new information adds to or modifies existing cognitive structures.

Use of language allows for the exploration of thoughts and ideas. It allows the child to consider possible consequences of actions not yet performed, and it allows the child to reason with more detail about any matter to which he/she attends. Verbalizing permits the child to use speech creatively to fit the unique characteristics of the situation. It helps define the elements involved in the particular situation and it makes clear the relationships among these elements.

Oral language plays an especially important role in cognitive development and in learning to read. It aids in the organization of cognitive structures and in the acquisition of a background of knowledge, and it is these cognitive structures and this background of knowledge that the child brings to the printed page as reading begins. Oral language also functions as a link between the new, the print, and the familiar, the concept. One cannot grasp a concept unless one can relate at least some part of that concept to a framework already in the cognitive structure. One must be able to relate the new to some part of the old. The child who is trying to read "pitcher", for example, must already have in his/her cognitive structure the concept of a liquid carrying vessel. Therefore, the task before the reader is to relate those black marks that spell "pitcher" to the already acquired concept of pitcher. This is where oral language serves a vital function, that of linking the new, the print, to the old, the already acquired concept. Without a linkage, reading would not be possible.

A growing body of research supports this relationship between verbal fluency and reading ability. As early as 1935 Hildreth studied the process of vocabulary acquisition of a five-year-old boy, and concluded that among the easiest words for the child to learn to read were those most often heard in his informal speech. Hughes (1951) studied the interrelationships among eight language arts; reading, spelling word meaning, language usage, capitalization, punctuation, sentence sense, and paragraph organization. Each of these language abilities, the findings showed, is related in a positive way to the other language abilities independent of intelligence.

Loban's (1963) longitudinal study of language development revealed that those students who were
superior in oral language ability in kindergarten and grade one were also superior in reading and writing at grade six. He also found that differences between students in the high and low Language Proficiency Groups were consistent for all language features in the study, which included reading ability, writing ability, scores on listening tests, and range of vocabulary. Ruddell (1965) and Tatham (1970) found that the greater the similarity between the child's oral language patterns and the language patterns used in the reading material, the greater the ability to comprehend written text.

Immersion in language appears to be an important factor in reading success. These language experiences, however, extend beyond the classroom to include the home. Hence, Bernstein introduced the concepts of "elaborated" and "restricted" codes, and has frequently stressed the advantages for students who enter school with language fluency born of the use of an elaborated code. Milner (1951) also considered the influence of the home and found that in the homes of children scoring highest on the language measure, mothers routinely ate breakfast with their children, during which there was a two-way conversation between mother and child. At the evening meal, there was general conversation among all family members, and adult contributions to verbal interactions also brought about more mature speech patterns.

Proficiency in use and comprehension of language results from active participation in a variety of language experiences. There are similarities among all of the language arts. And it appears that the greater the proficiency in oral expression, the greater the ease and success in learning to read.

The psycholinguistic explanation for the above emphasizes the role of prediction or anticipation. The greater one's fluency, the more accurately one can predict or anticipate the syntactic structures and vocabulary that will be encountered in speech or print, and thus the greater the ease in comprehending. Because of this relationship, and the influence which scope of oral language exerts on development in written language, there is an obvious need to incorporate a wide variety of language experiences into the reading program. Some suggestions follow:

Language Activities

1. Children need to hear adult speech. The teacher should talk about what she is doing, describing, explaining, and even posing questions about the actions in which she is engaged. Children should be encouraged
to join in the conversation. One should not "talk at" or "talk to" children, but rather "talk with" them.

2. Children, especially those who are shy, enjoy talking to or through puppets. The teacher or a student may assume the role of the puppet, or become the companion, if two puppets are used. Students may want to pretend they are characters from a recently read story, or they may wish to act out a contrived situation. Many alternatives exist.

3. Place a few objects behind a small screen on a desk, table, or the floor, and have two students sit on either side of the screen. The student on the side with the objects is to describe one of the objects so that the other student can guess what the object is, in three tries.

4. Language experience stories, in which the child's exact words are transcribed, provide excellent opportunities to practice all four modes of language use. The student is delighted to see his own words in print and greatly enjoys reading his own work. Students will want to share their stories with others. Stories may be collected and put into books. Because these stories are transcribed, even the child who is not yet able to participate in a creative writing activity can become an author.

5. Creative writing offers an opportunity for even the beginning reader to participate in a written language activity. Excellent stories have been written by children who have just begun to read. They are proud to identify their work, which should be displayed throughout the classroom. A positive and enthusiastic attitude must guide the teacher's reactions to student stories, despite grammatical and spelling differences. Insisting upon spelling and grammatical perfection would only defeat the purpose, which is to gain proficiency in all forms of language.

In addition to the above, choral reading, show-and-tell, group discussions, and dramatizations of stories and plays should be enthusiastically and routinely incorporated into the reading program. They provide excellent opportunities for students to listen to and verbalize among their peers.

Sources for Language Activities

1. Field trips are excellent sources for language experiences.

2. Strange-looking, unfamiliar objects brought into the classroom will undoubtedly elicit questions, conversations, and stories.
3. Children need "hands-on" objects of all sizes, shapes, and textures, such as: building blocks, sand table, typewriter, clay, balls, pieces of material of various textures, tools, animals, plastic plates and utensils, rope, string, etc. Teachers can encourage both oral and written descriptions about the objects' origins and uses.

4. An interest center filled with old clothes and costumes is an excellent means of promoting language experiences. Children may wish to act out an impromptu play or imagine they are famous people, and verbalize freely. Older students can be encouraged to write a play.

Students bring a wealth of cognitive and linguistic abilities to school. These should be recognized and incorporated into the reading program. To become proficient readers, children need to be actively involved in a variety of language experiences in all the forms—speaking, writing, listening, and reading. The role of the teacher must be that of facilitator in making the classroom environment serve these objectives. In this way, what the students say and do will comprise the reading-language program, becoming the basis for the acquisition of all four language skill forms.

REFERENCES


A NON-TRADITIONAL TECHNIQUE FOR TESTING VOCABULARY

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The close and very significant relationship between knowledge of vocabulary and reading ability has long been recognized (q.v., Strang 1938, Davis 1944, Smith 1950, Klare 1963, Davis 1972). Perhaps Strang expressed this relationship most succinctly when she wrote: "Vocabulary is like the warp threads running through the entire developmental reading program. It is prerequisite to, as well as result of, effective reading."

Thus, a prime responsibility facing our schools is deliberate guidance in vocabulary growth. However, instruction is only one stage in the overall process. Teaching/learning activities should be followed by accurate evaluation. Therefore, guidance in vocabulary development includes learning whether instruction has resulted in a clear understanding of the words studied.

Perhaps the most efficient way of evaluating whether a student knows the meaning of a set of words is to administer a vocabulary test. In a familiar kind of test the stimulus word is to be matched with the nearest synonym among four or five alternatives. When a student can make the proper match, he/she is credited with understanding the word.

Among the first to point out the shortcomings of this method of testing vocabulary was Cronbach (1943), who noted that the student may know a definition verbally without having an ability to apply it properly. He maintained that instead of requiring the student to match one word with another word, a vocabulary test should determine "...whether each word has meaning for the student in life situations..." (p. 528).

Russell (1954), who maintained that the most critical problem in testing vocabulary is that of unthinking verbalization, voiced a similar opinion
when he stated: "The difficulty caused by manipulating words without much meaning attached cannot be completely overcome in any verbal group testing situation, but it can be met in part by placing words or concepts in as meaningful a situation as possible..." (p. 325)

The views of Cronbach and Russell are reflected in a verbal reasoning test developed by Cook et al (1963), called "Word-in-Context". For each word on a word list that the examinee classifies as "I have never seen this word before and have no idea what it means," the examinee is given a set of three contexts in descending order of difficulty as a basis for inferring a given word's meaning. After reading each context, the examinee renders a verdict on the meaning of the word. The authors remark that this method of testing verbal reasoning "...provides a test situation which is similar to, if not identical with, a frequently met real life situation" (p. 228).

Ideas expressed by Russell, Cronbach, and Cook et al are consistent with another long-recognized relationship—the relationship between experience and word meaning; namely, that meanings arise out of experience. From an instructional standpoint this implies that the meaning of a word is made clear by indicating an experience associated with it. From the aspect of evaluation, the fact implies that if a student clearly has the meaning of a word, he/she should be able to associate it with an experience.

The task called for on the traditional type of vocabulary test, i.e., matching a word with a synonym, does not require the student to associate a word with an experience, and therein lies its greatest shortcoming. What is needed is a type of test that requires the student to select a word for which a given situation or expression of an idea is appropriate. A task of this sort would correspond to what Cronbach (1942) elsewhere termed the "application" level of word knowledge behavior—the student can "recognize that an illustration of the word, as commonly employed, is properly named by that word" (p. 207).

The vocabulary-testing technique which follows would seem to satisfy this stipulation. Briefly, it requires the student to match the description of a situation or the expression of an idea with a word to which the situation or idea alludes. Since this task differs rather significantly from the usual task of matching word with synonym, it may be referred to as a "non-traditional" technique for vocabulary testing.
Suppose you wanted to test a student's knowledge of a set of words that included the word "prefer". A non-traditional vocabulary test item for "prefer" might resemble the following:

For some people a vacation means nothing more than not having to go to work. For other people, a vacation means going hundreds of miles away from home. If I had a choice between the two, I'd rather go somewhere.
  a) notice  b) prefer  c) think  d) realize

Note that the word "prefer" does not appear in the paragraph. The student's task is to select the word to which the paragraph alludes.

In constructing viable test items of this type, the same guidelines that govern the construction of traditional test items apply (see Seashore and Ecker­son, 1940; Cureton, 1963; and Ebel, 1972). In addition, the teacher must be careful to formulate a given para­graph, or "stem", in such a way that it alludes to the key word only. Another important consideration in the formulation of paragraphs is that they depict situations which are within the students' realm of experience.

The fact that a paragraph context needs to be formulated for each word that is to be tested means that more teacher time (say 5-10 minutes more per item) would be involved than would be in constructing traditional test items. Certainly the time factor detracts from this technique's appeal; however, when one considers the potential for minimizing students' display of superficial knowledge, the additional time would seem to be justified.

Additional examples of non-traditional vocabulary test items are shown below:

Jim woke up very early in the morning. It was still dark outside. That afternoon he and his family were going to fly across the ocean in a jet plane. Jim was looking forward to the flight. He wished it were time to go to the airport.
  a) tired  b) nervous  c) eager  d) thoughtful

When Mary arrived at the party she could hardly believe her eyes. At one end of the room was a long table covered with many kinds of salads, vegetables, meats, and desserts. She was hungry now, but she wouldn't be hungry after the party.
This method of testing vocabulary comes much closer to Cronbach's and Russell's ideas of what a vocabulary test should accomplish than the traditional type of vocabulary test, because it requires the student to associate the meaning of a word with a life-like situation. As such it demands a firm grasp of the concept underlying a word, and therefore provides the teacher with reliable word knowledge information needed to move students closer to the ultimate goal of using a word in real-life situations.

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Parents are often baffled and anxious when teachers explain that, in their opinion, a child is not ready to cope with the academic demands of the next grade level, due to the child's lack of progress in learning how to read. The parents' perception of their child is that s/he has shown normal development. Yet, they are told the child is unable to perform successfully in the classroom. Haunted by childhood memories of frequent pupil retentions in the schoolrooms of years ago, the parents cautiously receive the teacher's judgment. In order to help with this situation, the parents inquire about the purposes of the classroom instruction and how they can become more involved in their child's education.

During this critical time the teacher's responsibility is to advise parents how they can make a direct and unique contribution to the development of their children. In many instances parents desire to have an active role in guiding the academic progress of their children. No longer willing to be simply receivers of information, parents need to be guided in reviewing their own reading attitudes, home environment, and the intent and extent of school and home support.

To make conference time with the parent optimally beneficial for the student and encourage the parent to respond to the teacher's ideas, preparation is necessary. A successful conference can occur with a preplanned course of action. Initially, teachers should confer with the reading specialist to brainstorm on an appropriate set of activities for assisting the pupil. Together, they should determine the range of possible activities, making careful plans for parent conference.

The activities suggested on the following pages
are results of successful planning conferences, ideas to which parents have responded favorably. Teachers should consider the following guidelines in communicating these specific activities to the parent(s):

FIRST. Teachers should be prepared to offer numerous suggestions to the parents. A teacher could propose the simple, frequently offered suggestion of reading with their children. However, we should remember that several activities based on a single suggestion are more effective than offering one idea. Thus, the basic activity could be expanded into three or four, from which the parents could choose.

Reading with a child can include listening to him read; asking questions before, during, or after the reading; or reading to a child. The following may expand the basic concept of "reading with your child."

1. If the suggestion is to have the parent read with the child, then guidance should be given concerning selection of a book from the library or newsstand. A useful technique the parent might use is the "five finger approach" in selecting a book, as to level of difficulty:
   - Have the child select an attractive or interesting book.
   - Flip to the middle of the book.
   - Ask the child to read a page orally, noting the errors by raising one finger per error.
   - If fewer than five fingers have been raised, then the book should be suitable to check out or purchase.
   - If all five fingers are extended before the child finishes the page, the child should choose another book, less difficult.
   - If the child is extremely interested in the book that he cannot read comfortably and resists looking for another, the parent can still check out the book and use the following activity.

2. The teacher should advise the parent to choose a book or short story, familiar to the child but which he cannot read on his own. Before beginning to read, the parent should ask the child to predict what will happen in the story. Having read a page orally, the parent can ask the child if the first guess about the story was correct. As the parent reads the book or short story, he/she should stop periodically and ask the child to offer another prediction based on the story line or main character. Following this type of questioning, different aspects of the plot can be included, to encourage purposeful listening and promote active involvement on the part of the child.
3. Before the conference could compile a list of children's magazine publishers' addresses. A ready-made list may be found among the local librarian's purchase order requests or in such books as Good Reading for Poor Readers by George D. Spache. The teacher can then collect copies of each of the magazines and have them on display for the parents to preview. The parents should be advised that the variety of activities found in the magazines may pique their children's interests and provide them with opportunities to read poems, short stories, or letters. Experience has shown that many children are thrilled to receive their own personal copy of a magazine in the mail. Having access to a variety of magazines in this way will allow the parents to follow-up the teacher's recommendation to read with the child.

4. Teachers might suggest expanding the child's home library as a means of providing some additional materials for parents to read with their children. An example of this would be to begin the tradition of a birthday or Christmas book. Teachers could suggest to parents titles which reflect the child's personal interests. In order to guide the parents further in the selection of these books, a handout listing popular books by title should be made available to them at conference time. The teacher with the help of the school librarian can compile this list of frequently read books for each age level. Later the titles can be sorted out according to subject. The exceptional books that have received the Caldecott Medal and Newbery Award can be listed separately. A bibliography of these books can be found in such sources as Children and Books by Zena Sutherland and May Hill Arbuthnot.

SECOND. While explaining the ideas or activities, the teacher should be clear. He should provide concrete examples of the activities and be prepared to role play. If the teacher gathers together a collection of the type of books being suggested, this display will give parents an opportunity after the conference to browse leisurely through appropriate titles. Teachers should prepare an example of the game or activity and be ready to list the materials a parent will need to duplicate it. After suggesting the specific game or activity, the teacher should take the time to begin to play it with them. The parents will have a better idea of the procedure used to play it at home as well as give them an opportunity to ask specific and pertinent questions. In this way the teacher will promote further understanding.

THIRD. The teacher should try to offer activities that will produce minimal conflict or interference with the family's routine. Many families have both
parents working outside the home. During the workweek, parents may not have the energy to consistently carry out complex, lengthy activities. Teachers need to tailor their suggestions to meet parents' time schedules—some of the following activities take little preparation; therefore, may appeal to busy, yet concerned parents.

1. Tape a word a week on the medicine cabinet door. The parents should try to use the word deliberately when speaking with the child. Each time the child hears the parent say the word, the child should try to give a synonym or definition.

2. Before the child leaves the breakfast table, have him supply the missing word to similes; i.e., As fresh as__________.

3. On the refrigerator door place multiple-choice statements about food. For example: Corned beef is beef that has been a)cooked with corn, b)smoked, c)cooked quickly, d)pickled in brine.

4. On the TV set leave a picture of a plant or animal that has an article associated with it, and have the child write the name of it in the margin.

FOURTH. The suggestions given should build upon the positive educational elements found in the home, and utilize the resources of the family; such as traveling experiences, home libraries, traditional celebrations, etc. When the teacher learns that a child has the opportunity to travel, she should have the child share the experience with classmates. In this way, the child will learn to understand that the subjects in school are valuable in his world.

1. Collect articles from the area and be ready to explain their importance to the class.

2. Bring a map and connect the cities traveled through with yarn so that children can see their classmate's route.

3. Bring pictures that illustrate the geographical landscape.

4. Identify sports or games of the area.

5. Imitate the language and dialect of the people met on the trip.

FIFTH. Activities suggested for the home should be different from those at school. The home experiences should deal with the academic areas in a new format, not simply repeat that which has been assigned at school. Prior to the conference the teacher should make a list of skills being taught in each subject area. The teacher should place the child's name next
to each skill in which he needs further practice. It will be necessary for the teacher to be familiar with the kinds of homework that have been assigned, to avoid duplicating those reviewed or extended activities at home. For the skills in which the majority of children are needing review, the teacher can supply the parent with a teacher-made game. The teacher can trace on a spirit master simple game boards that have not been used in class, and can therefore be used at home with assistance from the parents.

Each game has three components. The first of these is attached to the game cover and consists of clearly written directions which explain how to play the game and how to put it together. The second section supplies the actual game board which is run off on colored construction paper. The final component includes the construction sheets that have the cards, spinners, and additional blank pieces for the game printed on them.

In order to facilitate a smooth and orderly documentation of home activities, the teacher should keep a notebook which gives the name of each child, title of the game, and date it was given to the parent. With this kind of record keeping system the teacher will have an accurate account of the assistance provided to each parent as well as an indication of the skills needing reinforcement at home.

SIXTH The teacher should be ready to offer alternative activities for joint consideration and be prepared to accept parent suggestions. The conference should allow ample time for discussion of the ideas for methods and materials. Suggestions from the teacher may be developed and refined as discussion proceeds. Certain ideas may need modification as a tentative plan takes shape between parent and teacher. For example, during the discussion the teacher may discover that the parent does not enjoy playing games with the child; therefore, an alternative such as a peer or older child playing the game with the child is agreed upon.

In families where there is a history of reading failure, a frank discussion with the parents about the factors that encourage good readers will make them aware of certain tendencies in the family structure which should be promoted or eliminated. For example, there is a tendency among good readers to come from homes where reading is a valued activity and frequent discussions about school related activities occur. In addition, these children seem to enjoy a position of importance within the family structure. However, when children feel unloved, anxious, and constantly ridiculed, it is difficult for them to adjust to both
the academic and social demands at school. Their progress in reading will be affected accordingly.

Teachers should assist in helping parents organize to teach the mutually agreed upon activities. If the parents feel organized, their teaching behavior will significantly influence and enhance the activities designed for use in the home. Therefore, the suggestions should be directed to the parent in a non-threatening, open manner. These suggestions will help organize the parents as well as influence the way in which the activities are presented.

1. Spend time orienting the child to the task. A child's attention needs to be focused slowly yet deliberately away from play to the subject at hand.

2. Try not to control or direct. Let the child manipulate the materials and explore activities. For example, allow the child to hold the book or game pieces.

3. Give words of sincere praise; use positive reinforcement.

4. Allow the child to solve problems through the use of questioning strategies.

5. Depending on the nature of the individual child, set a specific time in the day or week for participating in the activities. Some children, however, may become tense as the activity time approaches and use a variety of avoidance techniques. Both parent and child may then look upon this session as something less than enjoyable and gradually avoid working with each other.

As a result of this conference the parent becomes a true participant in the teaching/learning process. Cooperative action has become possible because of the following three factors:

1. coordination and development of the ideas between the reading specialist and the classroom teacher;

2. careful and thorough preparation by the teacher for the parent/teacher conference;

3. supportive guidance to the parent as s/he assumes the role of teacher. With this kind of partnership parents will become sensitive to their child's progress in reading.
Classroom teachers have always had exceptional students in regular classrooms; many of these children could not be placed due to overcrowding of special education classes. Some were undiagnosed and unrecognized in terms of specific disability. The parents of others would not allow separation from regular learning settings. Often these handicapped learners in normative educational settings were relegated to marginal roles and ignored. Special learners were sometimes the focus of annoyance of teachers and classmates, who did not understand their disability and could not effectively aid special learning. Much of the time, handicapped children were successfully taught by the ingenious teacher, who utilized make-do arrangements, but was effective in reaching students with special needs. Further, there is research to indicate that some exceptional learners whose disability is not extreme do learn very well in regular classrooms and do not profit educationally or socially by being separated from their more normative peers (Dunn, 1968, Goldstein, Moss and Johnson, 1965).

Since the passage of P.L. 94-142, the classroom teacher is being asked to meet the needs of some youngsters with learning problems, not on a catch-as-catch-can basis, but by conscious and rational effort to reach the handicapped child with logistical and educational support from the administration, the special education staff, other teachers, specialist teachers and parents.

The Mainstreamed Classroom

When viewing reading instruction for handicapped children in the regular classroom, the nature of the mainstreaming process and the changes to be considered --we must look at the curriculum, the teaching methods, and the role of the teacher, both for the normative student and the handicapped child. What is called
for, then, is a model whereby all participants are encouraged to rethink their roles to meet the needs of exceptional students, who are often more able than their peers in some abilities.

In the mainstreamed regular classroom, teachers may encounter such problems as 1) auditory problems, 2) visual problems, 3) language processing and language development problems, 4) social and emotional problems, 5) problems of the slow learner, 6) physical handicap, and, as is often the case, 7) multiple handicap as part of the mainstreaming function. To indicate how such disabilities as these may interfere with reading ability, let us take the case of auditory handicap and look at this difficulty with respect to the components of assessment and communication. The knowledge or experiential base of the auditorially impaired may be reduced, since the student cannot hear much of what is being said or explained. Communicative desire may also be reduced, since the speaker may not be certain he has understood what went before. Receptive processes are obviously impaired. Knowledge of the linguistic process may well be limited.

Non-discriminatory Assessment

Diagnosis of reading strengths and weaknesses becomes problematic with the exceptional learner; by mandate, testing bias must be reduced as much as possible in terms of the student's handicap. Using the example above, if a child has an auditory handicap, compensatory methods of testing reading ability must be provided in order that true measurement may occur. A group test would be unsuitable, unless auditory equipment is furnished, giving that student an equivalent status visually and linguistically with his peers.

Thus the teacher and child study team must look for causes of bias in the characteristics of the handicap of the student. Tests themselves may be sources of bias. The examiner may lack appropriate training and proper attitudinal perspective, conditions in the assessment situation may bias the performance of the child; and, conditions between the child and the examiner may influence performance on the tests.

Development of Individualized Education Programs

Once diagnostic and assessment procedures have been carried out by the evaluation team, an individualized educational program for each special learner must be formed by the child study team, which may include the principal, the teacher, the psychologist, the special educator, the corrective reading teacher,
other pertinent personnel, as well as the parents of the child. This individualized learning program must be carried out in a non-restrictive environment. Thus, in the terms of reading instruction, the special learner may or may not meet with the regular class for teacher directed instruction, meet in the small group for reading instruction from the special educator within the classroom and later on in the day, meet in a learning resource room with the corrective reading teacher.

Specific goals for instruction would be spelled out for the youngster and the responsibilities would be delegated to the respective members of the child study team. In addition, the child might be required to meet with his counselor or the psychologist to work out individual problems with regard to motivation and behavior. Thus the child's schedule might include fifteen hours per week with the regular class, five hours a week with the special educator in the classroom context, five hours a week in the resource room, and another hour per week with the psychologist. The child would be expected to achieve specific goals with specified personnel. A pull-out program or cooperative program can become chaotic unless responsibility is clearly delegated to each member of the teaching team for learning.

The special learner's parents should be informed of all that is transpiring in terms of the goals set forth in the individualized educational plan. Indeed, if progress lags, the parent may be asked to aid the child in various ways so that compensatory methods and learning can occur with support from the home.

**Universals of Appropriate Instruction**

The reader may be thinking that many of the techniques in individualized educational programs are not new to education nor are they appropriate only to the special learner. Why, one asks, would not such IEP's be useful and humane for all youngsters? And that is precisely the point. The diagnostic prescriptive techniques suggested have successfully been used by classroom teachers and reading specialists for many years.

Many teachers have a mistaken notion that the curriculum, the diagnostic corrective procedures, and emotional needs of the handicapped learner are totally different from what occurs among the modal learners. Special educators are bound by state and local curriculum guides as is the regular classroom teacher. Much of their diagnostic procedure is based on tests used by the classroom teacher and the reading
teacher. Remedial techniques are nearly the same with only some modification to accommodate handicap. To assume there is a dramatically different instructional and affective program for the exceptional student is to do the special learner a disservice.

Factors to Emphasize in Implementing Mainstreaming

Teachers who are prepared to teach are prepared for the mainstreaming task. To implement mainstreaming more emphasis on some techniques and less stress on others must occur. Currently, classroom teachers are accustomed to a one-teacher class, large group instruction. But teachers are capable of utilizing every technique that is mandated for the implementation of PL 94-142. The teacher who will engage in mainstreaming instruction should emphasize the following principles in implementing the program:

1. Working in a consistently congenial and scheduled manner with the child study team.
2. Inclusion of parents in the planning, and implementing the individual study program.
3. Stress diagnostic prescriptive approaches and a more complete knowledge of the dimensions of language assessment.
4. Stress non-biased, non-discriminatory assessment in terms of specific disability while assessing reading ability.
5. Commitment to a highly individualized program for the special learner, and for the class.
6. Emphasis on small group instruction, peer-tutoring, parent-tutoring, and the use of the support staff, especially in the classroom.
7. Openness to task analysis and break-down of instructional tasks for the learner as well as reduced or changed pace of presentation based on educational need of the student.
8. Openness to using techniques and materials modelled by the special educator and the corrective reading teacher.
9. Stress on greater knowledge of the linguistic and reading process in terms of cognitive strategies for the special student.
11. Arrangement of planning periods where the child study team discusses and coordinates instruction for the class as a whole as well as for the exceptional student.
12. Increased awareness of social problems and group dynamics when dealing with exceptional students.

13. Self awareness of attitudes and abilities for working with special students.

14. Emphasis on reduced class size in order to give more individual attention and to do more planning.

The shift in instructional and educational emphasis suggested above is essential and mandated in the mainstreaming process. But all of these principles and techniques could be used effectively with the model student as well. By the same token, there are procedures that work well in the special education classroom, which are especially helpful to all children—the handicapped or modal—in the mainstreaming situation.

First among these procedures useful to the mainstreamed student is modelling of the reading and languaging process. To provide linguistic models to the student, the teacher gives corrective feedback. When the learner responds or speaks using limited or faulty language, the teacher simply includes a correct restatement of the misspoken element in the response. The teacher does not correct the student, but simply changes the linguistic form in the response. The teacher provides a great deal of repetition in speech; using the principles of linguistic redundancy, so that the student no only understands linguistic forms, but has a great many opportunities to gain meaning from what is said. The teacher strives for relevancy, seeking to relate all learning to some experience that can be understood by the child, or is, in fact, part of his past experience. Finally, the teacher should continuously expand the language that the young person is using, integrating more adverbs, adjectives, phrases and clauses in her language as well as more complex reasoning about the experience of the learner.

Second, special learners need warmth, support and understanding. Nearly every child responds to positive reaction and response; but the special learner often needs more affirmation than the modal youngsters. In special classes, these young people frequently are attended to more supportively since such classes are small; in a large class setting, being treated "like everyone else" may seem like rejection.

Third, task analysis, a break-down of what must be learned followed by a highly sequential and ordered presentation of information, helpful to the normative
student, is essential to the conceptual development of the exceptional student.

Finally, the expectancy of success, often a given for the regular classroom student, is not necessarily an orientation toward the special student. Teachers may harbor a reticence and reservation about their own capability for reaching such students; further, the capability of a handicapped learner may be in question. These attitudinal factors effect the outlook for success of the program.

The prospects for working out superior educational programs with greater attention to individual children, on the basis of their unique capabilities and affective needs, while working in a cooperative venture with specialists, parents, and administrators, is invigorating. Special children have been isolated for too long. What we have not realized is that people who affect the lives of children, teachers, specialists, administrators, psychologists, and parents have frequently been isolated in their functioning as well. The integrative model for mainstreaming may provide for professional interaction with the special child as a primary focus in a model which may function even more effectively for the modal learner.

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There is little doubt that a student stands a good chance of comprehending difficult content area material when actual life experiences can be related to an author's intent. The importance of a reader's prior knowledge and experiences in the meaningful reception, integration, and retention of new concepts is a widely held precept in learning theory (Ausubel, 1968; Smith, 1978).

Teachers can foster this essential blend of reader experiences and author intent by employing strategies that build readiness for reading content material. One such pre-teaching strategy, the structured overview, has been outlined in some detail by Vacca (1977). The present article describes another approach to fostering readiness in the content areas, involving the use of teacher-constructed reasoning guides.

Reasoning Guides

Reasoning guides as defined by Herber (1978) contain broad, applied level statements aimed at stimulating the reader's thinking during reading and after the completion of a selection. Used before the reading of a selection as a preparatory aid, a reasoning guide can effectively mobilize a student's prior experiences and existing belief system concerning a topic. On a post-reading completion of the reasoning guide, student responses may well be in marked contrast to initial responses, reflecting the degree to which the reader perceives the author's intent.

The following example illustrates the way in which a reasoning guide can be used as a preparatory aid to comprehending a poem by Richard Brautigan (1970, p. 114), and as a springboard for follow-up discussion.
Directions: Before reading the poem, check those statements that you would agree with. Then, after reading the poem, check the statements you think the poet would agree with. Be prepared to give reasons to support your choice.

<table>
<thead>
<tr>
<th>You</th>
<th>Poet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Technology frees us to enjoy the wonders of nature.</td>
</tr>
<tr>
<td></td>
<td>2. Life in the city is crazy—life in the country is the way to go.</td>
</tr>
<tr>
<td></td>
<td>3. The advantages of technological growth far outweigh disadvantages.</td>
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<td></td>
<td>4. There is already abundant evidence that computers will someday control our lives.</td>
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ALL WATCHED OVER BY MACHINES OF LOVING GRACE

I like to think (and the sooner the better!) of a cybernetic meadow where mammals and computers live together in mutually programming harmony like pure water touching clear sky.

I like to think (right now, please!) of a cybernetic forest filled with pines and electronics where deer stroll peacefully past computers as if they were flowers with spinning blossoms.

I like to think (it has to be!) of a cybernetic ecology where we are free of our labors and joined back to nature, returned to our mammal brothers and sisters, and all watched over by machines of loving grace.

Richard Brautigan

(Excerpted from the book The Pill Versus the Springhill Mine Disaster by Richard Brautigan. Copyright 1968. Reprinted by permission of DELACORTE PRESS/SEYMOUR LAWRENCE)
Follow-up Discussion

Although students complete the reasoning guide individually, a key to its success as an aide to comprehension resides in follow-up discussion (Herber, 1978). Students in pairs and small groups compare responses and collaborate in the comprehension process, thereby extending the bounds of intrapersonal reading. Since reasoning guides are written at the applied level of comprehension, students feel free to risk defending a guide statement according to their own experiences. Unlike literal, convergent pre-reading questions, applied level statements require the reader to engage in divergent thinking with little chance of failure. At the post-reading discussion stage, the presentation of a convincing counter-argument by a fellow student may cause one to alter his/her initial point of view.

Developing a Pre-reading Reasoning Guide

1. Identify the author's intent, realizing, particularly with literary works, that a range of interpretations may be possible.

2. Decide what reader experiences are important for understanding the author's intent. What allusions does the author make? Are there similes--metaphors--conceits?

3. Create statements, some of which are supportive of your interpretation of the work and some that are antithetical. These statements can be straightforward or deceptively attractive, but they should allude to common knowledge or common value systems of your students which the author treats in an uncommon way.

4. Arrange the statements on a sheet of paper with two columns for pre- and post-reading reactions as in the poem example.

Other Print and Non-print Applications

Reasoning guides can be created to aid comprehension in a variety of content area learning situations. They can be designed to help explicate important ideas in a content area text or to enhance student learning from films, field-trips, and/or guest speakers. Herber (1978) provides a wide range of specific examples of reasoning guides encompassing most subject areas.

As with any teaching strategy, reasoning guides can be overused and abused. Employed judiciously in combination with follow-up discussion, reasoning guides provide a vehicle that acknowledges and capitalizes on a student's real-life experiences with a topic before and after reading about it in content material.
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RETAINING THE RETURNING ADULT IN A READING PROGRAM

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Education, as a life-long process, continuing regardless of a person's background or interests, is an idea that is gaining acceptance. The rapid changes in our increasingly complex society have made the need for adult reading programs acute. Many adults require increased reading skills for reasons that range from retraining for better employment to enrichment in personal lives (Jones, 1979; Knowles, 1978).

The purpose of this paper is to discuss open-entrance/open-exit programs to prevent attrition in adult reading programs that are designed for the student who has not completed high school. Often these students need to become better readers and to become test wise in order to take high school proficiency tests or some other test necessary for entrance into military service, trade schools, and/or various government-supported training programs. Suggestions for encouraging success within such a program are offered.

The Adult Student in a Reading Program

Adult students returning to school usually have had economic problems that have interfered with normal high school progress. Many, especially over fifty years of age, had to leave school in order to help support a family. Some middle-aged women students left in order to marry. These early marriages precluded further schooling because of social and financial considerations. Both types of students then return in order to be better employable or to be educated. Recently, young women in their late teens and early twenties have been returning after their babies are two or three years old. Divorced women of all ages return to school desperate to find an employable skill. Young men and young women return in order to obtain
their GED to qualify for military service. Adults from all age groups from various rehabilitation programs enter the adult reading classrooms as a first step to returning or beginning a productive lifestyle. The adult student also might be foreign-born and seeking literacy in their second language, or s/he may be interested in obtaining American equivalents to his/her native education. All have in common the need for further education.

Although these students have different backgrounds, experiences, and expectations, they react to adult reading instruction similarly. Each has taken a personal risk to return. S/he has decided it is worth the risk to expose any deficiencies s/he might have. Adult students with added emotional burdens of being unemployed, underemployed, or recently divorced, are apprehensive when classes begin. Often, they do not have a clear idea of what they want from further education. People sometimes enter an adult education program after being told by a social service agency or other agency to "go get your GED." Some students have unrealistic notions about what can be done in a short time. The student who has only completed seventh grade, and who has never finished reading an entire book is going to have difficulty passing a standardized test in three weeks by any other means than by guessing. This realization can lead to bitterness toward the recruiter who has told the student "take several weeks to study for your GED" as well as toward the school that is at a loss to prepare the student quickly.

Adult students often have pressing family obligations that take precedence over the demands of school. Babysitters, sick spouses, and transportation problems are common for an adult. With all these forces at work, the adult often is initially anxious in the classroom. These problems are intensified by the fact that the classroom is a foreign and uncomfortable place for one who has not been in a school setting for some years, and perhaps has never felt successful in that setting.

Lack of success, personal hardships, and pressing family obligations combine to give adult reading classes a notoriously high rate of attrition. Attrition occurs when one of the problems discussed above becomes greater than the willingness to go to school. Also, if students do not feel a sense of accomplishment soon after their re-entrance, they are confirmed in their initial apprehension about returning to school. Dropping out is a way to save face when the work is difficult.
An enrollment policy that allows for open-entrance and open-exit into a reading program is a boon to the adult student (Cline, 1972; Duboise, 1972). With this policy a student is allowed to enter the reading classroom any time during the semester and to finish when the prearranged work is completed. For example, students wishing to obtain the GED will enter a class and study until the objective is reached. This policy provides for the most service for the greatest number of students at the time when the students need the services. Further, this policy requires that the teacher individualize instruction.

It is obvious that such a policy could lead to chaos in the classroom without careful organization on the part of the teacher. If a student enters a classroom where chaos exists, s/he will not remain. Also, an open-entrance/open-exit program with individual instruction often does not meet the expectations of the returning student. To this student, school is a highly formalized situation where all students are quiet and attend to one task, generally assigned by the teacher. In order to lessen the initial shock that individualized instruction incurs, students are immediately made aware of what is happening and why it is occurring. Diagnostic material that is given soon after entrance should be presented to the students in as non-threatening a manner as possible. Students also need time to know the teachers, other students, and the aids they will be working with. They need to know what is expected of them. If they are not made to feel comfortable in a relatively short period of time, they will drop out.

Another significant cause for the high attrition rate in adult reading education is that after the students are settled into the routine of individualized work, they often are left with a sense that the work is not progressing toward a goal. This is due partially to the fact that many teachers, who believe in a high individualized classroom, are reticent about giving students specific times and deadlines for completing materials. It is common for a teacher to tell a student to take as long as is needed. This leads the student to believe that not much is being accomplished.

One way of combating this sense of stagnation is to have many materials organized in small units so that students are able to complete assignments in a period of not more than two weeks. There are several advantages to this small unit, open-entrance/open-exit system:

1. Students participate in a learning activity
that has a beginning and an end, thus allowing for a greater sense of accomplishment.

2. Students who are ill or have some problem that forces them to be away from the classroom for a period of time are more likely to return if they feel they are going to be able to enter into an activity which has a focus.

3. Activities organized in small units allow for individualization in the adult classroom --essential in terms of the varied backgrounds of the students.

Some students can participate in a small unit while others can work on individualized materials. This also allows the new student time to adjust to the new environment and to consider what s/he wants from the program.

There are certain cautions that should be considered when using a system of small units with adults:

1. The teacher must remember that the point of using small units is to give the student a feeling of accomplishment and that the classroom activities are leading somewhere. Units that have practical purposes should be designated. For example, a unit on applications of concepts of reading legal contracts could be useful. Another useful unit would be on teaching concepts in syllabication using patterned language writing (Allen, 1976).

2. Teachers must be keenly aware of what students need; the unit should be for the students and not for the teachers. For this reason, efficient teachers build up stocks of materials that can be used readily.

3. A teacher's aid is necessary in a situation where there are several activities going on simultaneously. When the teacher is engaged in formal instruction of the small unit, it is necessary to have someone available to work with people in individualized work, and to talk with new students.

4. Too much individualized instruction can lead to a feeling of isolation. The teacher should integrate some group activities with individualized efforts so that adult students can share in the community of learning.

In addition to the use of small units to teach concepts in reading, adult teachers should consider using a method of instruction that is simple and direct. Thompson (1979) has found this successful with under-achieving junior college students, and the authors
have found it successful with adult reading students. Further, the content of instruction should be as con­crete and as practical as possible. Adults, especially older adults, consider abstract material "fanciful" and/or a "waste of time" (Hulicka, 1967; Shmavonian and Busse, 1963). This does not mean that adults want learning materials that deal only with buying groceries and selling houses. They want materials that are concep­tual in nature and have practical application.

Adults also desire feedback on their interaction with the material and also are prepared to give the teacher feedback on what is right or wrong with the material they are working with. Sometimes they are willing to sustain an effort to see if the activity will progress toward a goal. If it appears that their engagement in the activity is not progressing, they will leave or tell the teacher after it is too late to correct the problem.

The teacher's relationship with the adult student is one in which it is acknowledged that the teacher has something to offer. Adult students are aware of their deficiencies. The successful teacher of adults helps them become aware of their strengths. It is not uncommon to have women relate that they know nothing after taking care of children for twenty years; or for men to indicate that they know nothing, even though they have held hearth and home together and kept the proverbial wolf from the family's door.

Respect for the adult student is essential. Any hint of patronizing on the part of the teacher will cause the relationship between the adult student and the teacher to disintegrate rapidly. Most adults do not mind if the teacher is young, old, male, female, fat, or thin. They do mind if the teacher shows them a lack of respect.

Providing for Success

In addition to the Haase and Robinson (1978) suggestions for providing success for older readers, the following are offered. Teachers in an open-entrance/open-exit reading program should be prepared to:

1. Recognize the life stresses which affect the returning adult reader.
2. Develop activities that are in harmony with the open-entrance/open-enrollment policies.
3. Individualize instruction to the needs of the adult student.
4. Keep instruction simple and direct.
5. Consider using short units of instruction
in order to insure a feeling of accomplishment.
6. Present conceptual materials that have practical application.
7. Integrate individualized instruction with group instruction.
8. Help adult reading students feel they are contributing members of the reading class.
9. Provide an atmosphere of success and support.
10. Respect and enjoy the adult reading student, even though the frustrations may be many and the rewards few.

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LEARNING THE ROPES—
SURVIVAL TECHNIQUES FOR
COLLEGE FRESHMEN

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According to Alvin Toffler's book The Third Wave, the expert is not longer on a towering pedestal. More and more, lay people are being added to the decision-making process in hospitals, in industry, and even in schools. Parents and students are expressing the new attitude, "You don't have to be an expert to know what you want."

At Technical College Reading Center, we listened to our experts—the UMC students. Sophomores indicated what they needed, in order to earn desirable grades in our two-year technical school. Taking their suggestions, we decided to expand the focus of our reading program to include those "survival skills" identified by the "pros". Our purpose was to give the unsure freshman student a boost in the right direction; i.e., a fast course in "learning the ropes."

Initially, we had students enrolled in study skills courses conduct surveys on where to study on campus. The students collected worksheets, notes, flashcards, and old exams. These were compiled into study files available for checkout in the library. Students kept accounts of study hours, correlated on a chart with grade point averages. For example, it was found that an A-B student studies 15-20 hours a week to attain successful grades. Each quarter new surveys were conducted and course study files were updated. This involvement by "those in the know" added a dimension of veracity and relevance that would have taken our staff a millennium to impress on student minds through lecturing or dittoed handouts.

We next used study and test-taking tips that students suggested during small group discussions
and created some short, entertaining audio-visual programs based on student' experiences.

Our first program was seven minutes long and was entitled "Everything You Never Wanted to Know About Studying, But Knew You Should Ask". We brought the issue into focus immediately: "Here you are in college and it's time to face the facts. You are not here to go to football games and beer busts, or to find dates all of the time. You are here to learn. This means going to class, and, you've guessed it already--studying, an activity most of us want to avoid, but know we must do. In a recent University of North Dakota survey, students said that studying was the number one problem that they encountered."

Each idea or concept was introduced with an example given by our students, followed by suggestions they had previously shared with us on how to alleviate the problem situation. An outline of the concepts covered follows:

I. Introduction
   A. Everyone needs to study to get good grades
   B. Everyone can benefit by increased efficiency in studying effectively

II. When to Study
   A. What time of day is best for study?
   B. How many hours a week should you study?
   C. How long should one study at a sitting?

III. How to Study
   A. Gather all materials you will need
   B. Utilize self-testing from notes
   C. Some concentration methods for studying
   D. Solo versus group studying situations

IV. Where to Study
   A. Comfortable place
   B. A place with good lighting
   C. A place with no distractions

V. Help in Study – Available Resources

We compiled study and faculty feedback of this program from our college and from area institutions (Concordia College, Moorhead, North Dakota State, and University of Minnesota). Reviewing their evaluations, we decided to make another program for general test-taking. Again, we included ideas that UMC students identified as useful.

Our students, however, still demanded more basic information. One student reported that a fellow had passed his medical board exams without taking a single
medical course. Students spoke up: "What about the Nursing Boards?" "I have to take aviation ground school exams." "There is a civil service test for radio announcing." "I have a state court-reporter test." "Remember CPA exams for accounting." The comments led to queries about tests in other technical courses such as natural resources, restaurant management, animal nutrition, and agronomy. We became aware that test-taking, objective questions in particular, were important student concerns. Our programs had covered study schedules, taking notes, and general study techniques. But our students asked for some test-wiseness tips to build confidence in taking exams and relieve their test anxiety.

We researched published work in the field of test-wiseness (Langer and Wark 1969), Millman and Pauk 1969, Ford 1973, McPhail 1975, Shepherd on double negatives 1979, and sections on test-wiseness in Stanley and Hopkins' Educational and Psychological Measurement and Evaluation, 1972), and produced a series of light and humorous multi-media programs on test-wiseness clues for true-false, matching-completion, and multiple choice exams. We took care to indicate to students that test-wiseness will only work up to 20% of the time, and then only with certain courses and certain instructors! The best solution was to attend class and study!

Students took the basic test-wiseness concepts that we offered and collected test-wiseness questions from their course exams. These were compiled and became quizzes for our units. Besides serving as application of test-wiseness skills, the quizzes were poignant. The students found it enjoyable and challenging to tackle questions from a myriad of subjects such as apiary studies, economics, hunt seat equitation, biology, tractor maintenance, restaurant sanitation, psychology, horticulture, child development, mechanized agriculture, business law, computer programming, and first aid.

Concepts covered in true-false were:

1. Answer all the questions. You have a 50-50 chance of getting them right.
2. Watch for specific determiners for true: most, generally, may, sometimes, some, can, most, tends to, usually, many, few, often, seldom, more, less, good, occasionally, great, little, rarely, probably, frequently.
3. Watch for specific determiners for false: only, always, all, never, invariably, absolutely, every, none, best, worst, guarantees, undoubtedly, insures.
4. If a question is partly false, it is all false.
5. If something sounds odd or out of place, it is probably false.
6. Know how to comprehend double negatives.
7. STUDY and GO TO CLASS!

Concepts in Matching and Completion were:
1. Use the process of elimination to help find an item mate.
2. Use association to give you a clue.
3. Grammatical agreement of both items is a clue.

Concepts for Completion were:
1. Write in something as an answer.
2. Note the number of lines allowed.
3. Note the length of the line allowed.
4. Watch for grammatical agreement of singualrs and plurals, and "a" and "an". Answers beginning with consonants follow "a", while "an" is followed by a word that starts with a vowel.
5. STUDY and GO TO CLASS!

Concepts in Multiple Choice were:
1. Questions in general terms call for general answers.
2. The longest alternative is a good bet for the "long-winded" instructor.
3. Choose a middle value alternative.
4. When you come across opposite alternatives, one of them is usually the correct answer.
5. "None of the above" is seldom used. "All of the above" is more often preferred.
6. If two alternatives mean the same thing, choose neither of them.
7. Use association.
8. Watch for specific determiners, as for true and false.
9. Inter-item clues can give you up to 2-4 correct answers on the average test. Try to re-read your test when you are finished, to catch them.
10. STUDY and GO TO CLASS!

All concepts were illustrated with simple hypothetical examples. More difficult questions were covered in the quizzes taken directly from UMC exams.

A test-wiseness pre- and post-test is now being developed, utilizing items from actual tests given at UMC. Because we have listened to students as the experts, we believe that our audio-visual programs have increased student self-confidence and inculcated an attitude toward studying and test-taking as learning experiences rather than as cramming marathons that burn the midnight oil.
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(For more information or examples of materials and a complete bibliography on test-taking, contact the author at University of Minnesota Technical College, Crookston, Minnesota, 56716.)
TEACHING READING FLEXIBILITY IN THE CONTENT AREAS

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Two problems existing in secondary classrooms warrant the teaching of reading flexibility. The first is the problem of students being required to read extensively in many of their classes. In order to meet this requirement, they must accomplish their reading assignments efficiently in these subject areas. This, in turn, demands that they be flexible readers who can read rapidly when such speed is appropriate and slowly and carefully when a slow and careful rate is demanded.

In addition to the great amount of reading students have to do in many of their classes, there is also the problem of continually being forced to play the game of finding the proverbial "needle". Students are given reading assignments in various subject areas with no specific purpose in mind. Not knowing what to expect, they read all materials at the same rate, always looking for the information the teacher expects them to find. If teachers would give students purposes for reading, or help them set their own purposes, and teach them how to vary their rate accordingly, the needle in the haystack game would be discontinued.

Research findings indicate that most readers are rigid rather than flexible in their rate of reading, and this lack of flexibility in rate may simply be the result of inappropriate training (Harris, 1970). For, while the importance of reading flexibility is frequently emphasized in preservice and inservice classes for teachers, specific strategies for assessing and teaching the skill are generally not presented. This lack of training on the part of teachers is unfortunate, given the conclusion of many reading authorities that flexibility in rate can be substantially improved
with appropriate instruction (Dechant 1973, Weintraub 1967, Witty 1969). This article will define the flexible reader, suggest methods of assessing reading flexibility and present a strategy for teaching reading flexibility in content area classrooms.

Definitions of a flexible reader

There is general agreement among authorities that reading speed is relative to what one is reading and what one expects to derive from the reading. Specifically, a flexible reader is one who has the ability to successfully set his speed by integrating two important variables in the reading act: 1) the nature and difficulty of the material being read, and 2) the purpose for reading (Harris 1970, Otto and Smith 1970, Stauffer 1975).

No material is difficult in and of itself. While factors such as difficult technical vocabulary, abstract ideas, and esoteric problems affect readability, a reader with certain prior knowledge would not necessarily find material containing those factors difficult to read. The more familiarity readers have with a topic, the less they have to rely on the visual inputs from the text to gain information, thereby allowing them to skim. Their own background of information substitutes for those portions of the material they have skipped. Flexible readers survey the material for a particular assignment to obtain an idea of the difficulty of the reading task based upon material characteristics and the amount of familiarity with the topic they have, and decide on an appropriate reading rate and strategy.

Reader purpose can be determined either by the student or by the teacher, and can refer to either intellectual processes or to the type of information sought in a passage. Flexible readers determine their rate of reading on the basis of the kind of process and information demanded by the material and/or the teacher. For example, if a reader's purpose is to get an idea of the author's point of view regarding a certain topic, a skimming rate is appropriate. If, however, the reader is to read a step-by-step description of a scientific experiment in order to learn the details of setting up the experiment, a careful, slow rate is called for. This kind of accountability demanded by a teacher regarding a particular assignment will also have some bearing on the purpose setting and the reading rate. Students' reading rates, for example, should differ depending upon the kind of test they are preparing for, one that requires only literal recall or one that demands much higher level thinking.
An understanding of the variables that affect one's reading rate enables the teacher and the students to avoid thinking in terms of one rate for all materials and assignments. Flexible readers are capable of using a range of rates in the sense of a continuum, with an awareness of the relationship between reading strategy and rate. Students need to learn how to survey a reading assignment in order to determine the degree of difficulty, based on material and reader prior knowledge. They need to learn how to establish purpose for reading or deal with the purpose that has been set for them. After these factors have been carefully considered, students need to learn how to decide on a rate and strategy for reading. Such training should be given in all content areas where flexibility is an advantage. And the rewards that accrue to flexible readers? They reap higher grades because they achieve better comprehension, have to study less since they are able to complete more work, and they enjoy reading because they have more time for recreational reading.

Assessment of reading flexibility

One essential component for the teaching of reading flexibility is an assessment of students' abilities to set their own rate depending upon the relative difficulty of material and their purpose for reading. Assessment of reading flexibility can be accomplished in each of the content areas in much the same manner. While these assessment tools are informally based, i.e., prepared by the classroom teacher, each can be drawn from and applied to mathematics, English, science, social studies, and other content areas.

The assessment are of three types:

1. teacher-made tests designed to determine whether students possess various reading rates and whether they adjust their rates according to the relative difficulty of the material and their purpose for reading;
2. teacher observation checklists; and
3. student self-assessment inventories.

Teacher-made tests. The easiest way for teachers to determine if their students are flexible readers is to make up a test using the materials which are read in the course. The informal teacher-made test is an effective tool for the content area teacher because it provides immediate diagnostic information, is prepared from the materials the students use, and is geared to instruction.

One type of informal teacher-made test is an exercise to determine if students have the following reading rates and can use them appropriately:
1) a slow and thorough reading rate for study materials and difficult reading with unfamiliar abstract concepts and technical vocabulary;

2. an average reading rate for some magazine articles, textbook chapters, and easy fiction;

3. a rapid reading rate for entertainment reading;

4. a skimming rate for getting a general overview of material and obtaining key ideas; and

5. a scanning rate for finding specific facts and locating particular information quickly.

When preparing this exercise, it is important that the teacher provide a purpose for reading the material as well as suggest the appropriate rate and strategy in order for the test to be a teaching tool. For example, the teacher would say, "Read this passage on the life of Dwight D. Eisenhower in order to learn what college President Eisenhower attended. Use a scanning strategy." A graph comparing all five rates could be used to provide immediate diagnostic feedback. Student who performed all five reading tasks at much the same rate can clearly see that they are in need of rate adjustment.

Another type of teacher-made test is an exercise to determine if students can adjust their reading rate according to the purpose for which they read. A simple device may be used. The teacher selects for the students two passages from a unit in a text, and establishes different purposes for reading them. One purpose might be to find a specific piece of factual or statistical information contained within a passage. Another purpose might be to classify certain information within the other passage and to relate it to the broader topic of the passage.

Such diverse purposes for reading, then, call for different rates of reading. In the first instance, a scanning strategy should be used, and, as a result, the students' flexibility is easily measured in terms of the speed with which they find the information. The second purpose requires a slow and thorough rate of reading. After the students have completed both assignments, a comparison of the time taken on each should be made. If, in the first instance, they have plodded through the material until they happened upon the answer, the students are not flexible readers. If, in the second case, they have sped through the material, they have not adjusted their rate to meet their purpose. Another measure of the inflexible reader is, if the students take as much time to find the isolated fact in a passage as they do to analyze or
classify important information within the passage.

The following example shows how students' abilities to adjust reading rate according to purpose can be measured:

Purpose 1: Scan the following passage to determine the two bases mentioned for classifying heart diseases.
Purpose 2: Read the following passage to identify the more common kinds of heart diseases. Be sure to understand the varying pathological conditions within each of the categories and their causes.

The last type of informal, teacher-made test is to determine if students can adjust their reading rate according to the relative difficulty of the material being read. One way teachers may assess students' ability to perform this task is to compare their reading rates for material containing familiar concepts and vocabulary with material containing unfamiliar concepts and vocabulary. Students would be encouraged to draw upon their prior knowledge with the familiar selection, and should be able to read it more quickly than the unfamiliar selection. If there is no difference in performance between the two tasks, students know that they are unable to adjust their reading rate according to the relative difficulty of the material. An example of this type of reading flexibility assessment follows:

Purpose: Using your knowledge of the family structure obtained through our reading and class discussions during the last few days, read the following selection on divorce in order to determine its effects upon the family structure.

Teacher observation checklist. Here is another method of assessing reading flexibility. Classroom observations often help identify students who need to become more flexible readers. Questions such as these may be kept in mind as the teacher observes one individual or a small group:

1) Does the student consistently take longer to finish reading assignments in class than other students?
2) When the purpose for reading is to find a single piece of information, does the student start at the beginning and read every paragraph?
3) When the purpose for reading is to get an idea of what the author is saying, does the student appear to be reading all the words?
4) Does the student fail to adjust rate in situations where the material is familiar and unfamil-
iar to him?
5) Is the student reluctant to do recreational reading because books take too long to finish?
6) Does the student read assignments which require in-depth study with little or no comprehension?
7) Given your responses to the above questions, would you say that this student is able to read at different rates for different materials and purposes?

Student self-assessment inventory. With the use of this inventory, students, as well as the teacher, can obtain immediate feedback regarding their competencies in this area. Some teachers are reluctant to use student self-assessment inventories because a number of students cannot or will not evaluate their strengths and weaknesses. Robinson (1978), however, says that even these students will do so if 1) they know that their teacher is using the results to help them; 2) there is no competition in the evaluation process; 3) the self-assessment is individual and private; 4) the self-assessment emphasizes a small and visible part of the curriculum; and, 5) the self-assessment is significant to the students and leads to a better understanding of themselves. A flexibility inventory can include questions such as the following:

1. When you begin to read an assignment, do you go over your purpose for reading it?
   ____ often  ____ sometimes  ____ rarely

2. Do you read most of your assignments at the same rate?

3. Do you know how to skim?

4. Do you know how to scan?

5. In which of the following instances would you use a skimming technique (mark those with +)?
   ____ reading a word problem in your math textbook
   ____ reading to find out how fish digest their food
   ____ reading an article to get the main idea
   ____ looking up a word in the dictionary
   ____ studying for a test on the details of reconstruction after the Civil War
   ____ reading an editorial to learn the writer's opinion
   ____ reading a science experiment

6. In which of the above instances would you use a scanning technique (mark those with a -)?

7. Are you flexible in your reading rate?
A strategy for teaching reading flexibility

There are two contexts or settings in which flexibility in reading rate can be taught to secondary students. One setting is that of a reading and study skills class which is part of the school developmental reading program. In this context, materials designed specifically for rate improvement are used to develop reading efficiency. These materials do not generally approximate materials students actually confront in their academic reading, nor is a purpose for reading often established for the flexibility exercises.

The other context in which flexibility in reading rate can be taught is that of a content area classroom. In this context, teachers are asked to integrate the teaching of reading flexibility with the teaching of content. There are several advantages to this approach. Instead of being taught in a vacuum, the skill of reading flexibility is taught for functional purposes by content teachers who see the need for their students to be flexible readers, in order to do the extensive and intensive reading required in their subject areas. Materials used in this approach are the reading assignments themselves.

The strategy presented here follows the theory of content area reading which means that the content determines the process. That is, the subject matter teacher first identifies the content understandings to be gained by the students, and then determines the skills necessary to achieve those understandings. If students are found to be lacking in the skills, the teacher integrates the teaching of the skills with the teaching of subject matter. This content centered approach is contrasted with the process centered approach used by reading teachers where the process determines the content.

Since flexibility of reading rate is a skill that is necessary for efficient reading in all content areas, informal assessment should be done at the beginning of the year or semester, using one or more of the assessment strategies suggested in this paper. If students are found to be flexible readers, then all that needs to be done by the teacher is to suggest an appropriate reading rate and strategy for the efficient achievement of the content understandings. If students are found to be inflexible readers, then the teacher needs to integrate the teaching of reading flexibility with the teaching of content, so that the desired content understandings will determine both the sequence and depth of purpose questions as well as the probable speed of search behavior. Presented in this way, the reason for reading in any content
area class is to arrive at content understandings, and an appropriate reading rate and strategy can help students gain those understandings efficiently and effectively. The following graphic display illustrates the teaching of reading flexibility in the content classroom:

**TEACHING READING FLEXIBILITY IN THE CONTENT CLASSROOM**

1. Identify content understandings for a reading assignment
2. Set a purpose for reading or help students set a purpose that focuses their attention on the desired understandings
3. Determine the flexibility rate or strategy necessary for accomplishing the purpose efficiently
4. Consider reading flexibility assessment data

- If students know how to apply the appropriate reading rate or strategy, suggest that they do so
- If students do not know how to apply the appropriate reading rate or strategy, teach them

By way of example, let us consider the application of this strategy in a social studies classroom where the students are studying the Civil War. The teacher wants her class to understand the biggest advantage the North had over the South during the War. Purpose for reading the chapter is to be able to explain why this advantage was so important in terms of the final outcome. The flexibility strategy important for accomplishing this purpose efficiently is skimming. Assessment data indicate that students do not know how to skim, and the teacher shows them a technique for skimming. Since class members are already familiar with the advantages each side had over the other, they should be told to let their eyes move quickly over the pages to mentally note/list the advantages the North had over the South. They should pay attention to headings, note the ideas in the introduction and conclusion, and check topic sentences in each paragraph discussing an advantage. Then the teacher encourages students to think about what they have already learned concerning favorable conditions for winning any war, and see if they can answer the purpose setting question. If they cannot, they should be encouraged to return to the selection, find the headings that explain the
advantages the North had over the South, and read those paragraphs carefully.

Because of the extensive reading that needs to be done, and the need to have students read with a purpose in mind, secondary teachers should diagnose students' flexibility needs. Integrating the teaching of flexibility with the teaching of content can be accomplished. Flexible readers can select appropriate rates and strategies. Those who are inflexible can be taught to apply particular rates and strategies.

REFERENCES


Jack reads adequately for a nine-year-old, but reading is not his thing. When he gets to the end of a basal-reader page, he'd rather quit than continue. So far, his reading materials just haven't turned him on.

You want to help Jack. You figure that there has to be a way to improve his attitude toward reading. But how?

Maybe by involving Jack more actively in his reading material. Maybe by giving him choices among high-interest topics. Maybe by providing cliffhangers at the bottom of each page. Maybe by creating a new format for Jack's reading material. All those 'maybe's' were addressed in the design of some new classroom reading materials called branched stories.

Since there are some 'Jacks' (and 'Jills') in every elementary classroom, it seems continually advisable to investigate new types of materials that might have a positive effect on their attitude toward reading.

This study, therefore, investigated the effect of branched stories on elementary pupils' attitudes toward reading. Specifically, it determined whether significant differences would be found in the attitudes of third, fourth, and fifth graders toward basal and branched stories.

Materials

The basals used in this study were the Scott-Foresman Reading Unlimited Series, 1976 edition. The experimental materials were the branched stories of the Attention Span Series (Mountain, 1978).
The unique branching feature is built into the format of each page of the Attention Span Series. The following excerpt from Time Trip (Mountain, 1978, p.9) demonstrates how branching involves the reader actively in the story: it provides both a choice in plot direction and three cliff-hangers at the bottom of each page.

Clouds of cold gray fog rose around Joe. For a few moments he felt as light as a leaf, floating through the fog. Then suddenly he knew there was something solid beneath his feet again. A second later everything came into focus, and he saw a...

FLYING LIZARD
continued
continued on page 11

STREAK OF LIGHTNING
continued
continued on page 15

TAKE YOUR CHOICE

Branching has been investigated before in relation to attitude. Senter, Nesberg, Alama, and Morgan (1965) did not find significant differences in their subjects' attitudes toward three programmed formats, one of which involved branching. However, the programmed materials used in their study were nonfictional.

This study was designed to investigate whether branching would have a positive effect on pupils' attitudes toward reading fictional material. Many studies have investigated reading attitudes of children (Koch, 1975; Vaughn, 1974; La Haderne, 1968); no previous study, however, has compared elementary pupils' attitudes toward basal and branched stories.

Procedures

The population sample consisted of one class each of third, fourth, and fifth graders from a suburban school district in the Southwest. These pupils had been classified as average readers on the basis of basal reader achievement tests but reluctant readers on the basis of teacher judgment. Their general attitude toward reading was one of disinterest.

The investigation took place during a two-week period. During the first week pupils read stories from their basal reader for twenty-minute silent reading periods. At the end of this time pupils completed an attitude scale, based upon the Estes Reading Attitude Scale (Estes, 1973), regarding the basal stories. This scale required Likert type responses ranging from strongly agree to strongly disagree. The twenty items on the scale expressed positive or negative attitudes toward the material read.

During the second week of silent reading periods the pupils were assigned to read branched stories.
Again, the investigators gave the adjusted Estes Reading Attitude Scale, with item order rearranged regarding the branched stories.

Both the first week and the second, pupils answering comprehension questions related to their reading, helping the researchers learn whether or not the pupils were indeed reading the materials about which they were expressing attitudes. Also, their degree of on-task behavior was observed and tabulated. Both the comprehension scores and the on-task scores gave positive evidence that reading was truly taking place.

Mean attitude scores from the first week were compared with mean attitude scores of the second week. Correlated t-tests for within-group data were used to analyze the data.

Findings

Significant differences in attitude were found between the mean scores of pupils reading the basal and the branched stories in all grades (grade 3, $p < .01$; grade 4, $p < .001$; grade 5, $p < .05$) and when the results of all grades were combined ($p < .001$). In all cases, this population showed more positive attitudes toward branched stories than toward basals.

Table 1

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>Treatment</th>
<th>Mean</th>
<th>Mean(Difference)</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>15</td>
<td>Basal</td>
<td>38.066</td>
<td>-7.133</td>
<td>-3.00 ($p &lt; .01$)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Branched</td>
<td>45.200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>Basal</td>
<td>38.562</td>
<td>-8.375</td>
<td>-3.96 ($p &lt; .001$)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Branched</td>
<td>46.937</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>14</td>
<td>Basal</td>
<td>37.714</td>
<td>-7.428</td>
<td>-2.88 ($p &lt; .05$)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Branched</td>
<td>45.142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3+4+5</td>
<td>45</td>
<td>Basal</td>
<td>38.133</td>
<td>-7.666</td>
<td>-5.78 ($p &lt; .0001$)</td>
</tr>
</tbody>
</table>

These data indicate that the branched stories had a more positive effect on third, fourth, and fifth grade pupils’ attitudes toward reading than did the basal stories.

Implications

Reading teachers often need to use a wide variety of material to improve the attitudes of pupils who are less than enthusiastic about reading. This study indicates that one type of material they might try is branched stories.

The typical nine-year-old Jack, who reads adequately but is not turned on by basal stories, can be found in many classrooms. The search for instructional
materials that will appeal to Jack is never-ending. THE material that will appeal to ALL readers simply doesn't exist, so teachers continue to collect many kinds of materials with many different types of appeal, in hopes of reaching Jack. On the basis of the data from this study, branched stories seem to be promising candidates for the collection. They just might turn Jack on.

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Estes, Thomas H., and Joseph L. Vaughan. "Reading Interests and Comprehension Implications" Reading Teacher, 27, Nov. '73, 149-153.

Koch, Robert E. "Relationships Between Reading Interests and Reading Comprehension Among Fourth-Grade and Sixth Grade Students." (Unpublished Ph.D. dissertation, University of Illinois at Urbana, 1974)


QUICK REVIEWS

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To encourage students to read, to see them arrive at the feeling that reading for its own sake is worthwhile, requires every facility and strategem a teacher can employ. For that reason, we may always see teachers and reading specialists looking at new materials, trying out recently published tests, and repeating research studies in all parts of the nation. Because reading is not a subject that is taught as a body of knowledge, the search for "the way" carries us into widely varying publications. We simply want to turn the skills of reading into a deeply satisfying habit in the lives of our students.

Thus, our conviction that every experience with reading is important to the reader causes us to recommend almost every book which comes across our desk for review. However, we are in good company—Johnson (Sam), Thoreau, Tolstoy, and Macaulay all said that wide and regular reading was the "noblest exercise" of all. Reading as a routine pastime is suffering neglect today because passive commercial entertainment captures our attention, and because physical exercise is given more media space. Yet, as we help young people recognize the delights of growing and discovering through reading, this most beneficial habit will come back into its own.

Classics of Children's Literature, edited by John W. Griffith and Charles H. Frey. New York: Macmillan Publishing Co., Inc. 1981. Pps. 957. Price $14.95. This volume contains literally hundreds of pieces of literature from several cultures. Many of the old stories are accompanied by illustrations which were part of the originals. This book will provide the basis for students of children's literature to make comparisons and analyses. Sheer size and weight would prevent its being useful to parents with small children.

There is ample evidence that this combination text and workbook was composed by one experienced in meeting real classes with real vocabulary problems. A theory based book would contain orderly exercises in orderly chapters, ad nauseam. This book is instructive, far ranging, and informal. The author devotes a sizable portion of her book to word elements of Latin and Greek origin, recognizing the dynamic nature of American English and the accelerated rate with which our language is becoming predominantly technical in nature.

Reading at Efficient Rates, a Program for Self-Instruction, (2nd ed.), 1981, published by McGraw Hill. Pps. 224. By Alton L. Raygor and George B. Schick. One of six parts in a series, the book deals with practice to attain suitable rates as a reading skill. The system of texts, workbooks, and tests were designed at the Minnesota Reading and Study Skills Center. They are meant to help high school and college students improve their basic skills in study, vocabulary, spelling, writing, reading, and math. It is a volume which can be loaned to a student—an important way to help students help themselves.

Children's Prose Comprehension, Research and Practice. Editors Carol M. Santa and Bernard L. Hayes. A publication of the International Reading Assoc. Published 1981, pps. 186, Newark, Delaware.

As a work whose title mentions a single facet of reading, this book should be easy to summarize and simple to evaluate. It is neither. So many points of view, concepts of terms, and research objectives manifest themselves that authors might be said to be using different languages. A number of questions occurred to this reader, who ventured into the book looking for answers—does the reading teacher have a reason for reading it? For whom is the book written? In her chapter, Marjorie S. Johnson put the whole matter in a straightforward sentence: "...attention to reading comprehension must be in the context of the reality of reading." We cannot examine the process of reading without observing the reader, the teacher, the parents, what is being read, and who is doing the examining.

Here is a versatile diagnostic instrument, for use in analyzing, observing, and recording a student's reading performance. The special virtue of this book is that its use is not limited to specialists. It was written and tested by practitioners in a classroom setting to be a valid tool in professional hands. Procedures, such as administering tests and interpreting results, are explained so that persons without extensive course work in the field will be able to discover the strengths and weaknesses of students at all elementary levels.


Edited by M. Jane Greenewald and Ann E. Wolf, this semi-annual publication has a special reason for being. The title says it: "Affective Domain Special Interest Group." As a part of the IRA, this group will meet in New Orleans, Tuesday, April 28, 1:00 P.M., in the Marriot Hotel. If you are able to find a copy of this ad-sig journal, read William H. Teale's "What Researchers Mean by Attitude Toward Reading." Another excellent article is one by Kathleen M. Ngandu and Bill O'Rourke, "Older Americans' Reading."


While many reading teachers who work with slower or turned-off readers find their best ideas by experimenting and grasping at straws, all will welcome a collection of practical ideas on how to solve the motivational problem. There is one difficulty with books of this sort; being practical usually requires being specific, which in turn often results in becoming prescriptive. Since all teaching must fit the needs of the group being taught, prescriptive approaches are seldom suitable. Teachers who use this book should be careful to recognize the ideas without becoming bound by an author's insistence on how the ideas should be implemented.
Rhodes, Lynn K. "I can read! Predictable books as resources for reading and writing instruction." The Reading Teacher, 34, Feb. '81, pp. 511-518.

This article discusses the characteristics of "predictable" books - books in which children can quickly begin to predict what the author is going to say and how he is going to say it. Characteristics are: repetitive pattern, familiar concepts, good match between the text and its illustrations, rhythm of language, rhyming pattern and cumulative patterns. The author describes how these patterns can be used with beginning and early readers to encourage immediate success with reading pictures, words, sentences, and whole books.

Rhodes also describes how such books can be used as resources for beginning writers. Children find that they can use other authors' patterns to generate and shape their own ideas. As they manipulate authors' written language, children become aware of and gain control over these conventions and patterns. Such learning leads to reading and writing growth.

Lickteig, Sister M. Joan. "Research-based Recommendations for Teachers of Writing." Language Arts, 58, Jan.'81, pp.44-50.

One answer to the back-to-basics movement in education, according to Lickteig, is renewed emphasis on writing skills. This response does not have to be more drill, rigidity, or teaching of facts and rules. Research findings free the writing teacher to "breathe the fresh air of creativity". Six suggestions, based on research, can be implemented by teachers. The six areas are concerned with: 1)positive teacher attitude, 2)supportive learning atmosphere, 3)wide experiences accompanied by discussion, 4)varied reading opportunities, 5)extensive writing experiences, and 6)cultivation of a sense of community.

Many authorities think the experience of writing itself is the teacher - that growth occurs separate from teacher instruction and evaluation. Expressing ideas in writing is the desired behavior. Writing, according to Lickteig, must become routine in the elementary classroom as well as a national priority.
This article traces the development of spelling skills in young children through clearly defined stages which parallel the earlier stages of language development. The initial "babbling" stage occurs in early kindergarten or first grade, and is called the Deviant Stage. It illustrates an awareness that letters represent words (btBpa), yet shows no knowledge of letter-sound correspondence. The teacher should look for evidence of alphabetic knowledge, mastery of left-to-right orientation, and discrimination of letter forms. Language experience stories provide a good approach for teaching at this stage of development.

The Phonetic Stage follows, and is characterized by an almost perfect match between letters and sounds (i.e., "ADE LAFWT KRAMD NTU A LAVATR" for "eighty elephants crammed into an elevator"). This stage should be nurtured without correction or criticism, allowing the child opportunity for fluency to develop; some spelling competence will evolve naturally.

Next comes the Transitional Stage; words look more like English (i.e., "ELG" for eagle is now "EGUL"). Finally, the Correct Stage follows with cues for formal instruction in spelling to begin. Opportunities for writing must be ample.

Noble describes a technique used with readers with limited vocabulary and discouraged readers who may be two or more years behind their classmates in reading achievement. Short stories and articles for directed reading instruction, on the child's instructional level but in areas of special interest to the student, are read both silently and orally by the child. He is then directed to choose several words "you want to learn". These are then written on an index card and taught in a short instructional session by the teacher, using appropriate techniques for teaching sight vocabulary.

Data is presented to show that words selected by the students themselves are retained much more often than words selected by the teacher. Self-selection is a motivational strategy that can help students with a limited background grow and increase reading vocabulary.