Those psychological principles which might aid the teacher in the selection of instructional materials are examined. Since learning is a process which builds sequentially on past learning, beginning reading materials should include words that have personal relevance for the individual child. Meaningful material is learned more quickly than nonsense syllables. Materials related to the child's experiences are more easily comprehended by him. The development of attitudes and interests cannot be measured by reading tests, but do contribute to reading growth. According to Blom, Waite, and Zinet (1968), the content of preprimers, primers, and first-grade readers is remote from the child's life. While he is keenly interested in the world around him, his reading stresses family attachment, younger siblings, and ambiguity in sex roles. Anthropomorphic and animistic thinking which the child is exposed to are thought to be barriers to his intellectual development. Natural sentences of normal length often are understood more easily than short, artificial ones which are remote from the true language experience and normal speech patterns the child is familiar with. References are included. (WL)
Psychological Principles In Materials Selection

If we believe that human development is linked to learning to read, we choose teaching materials that can be justified from a psychological base. Much is written about the behaviors children show as they learn to read. Less is known about which means are appropriate and which materials will facilitate such learning. It is the purpose of this paper to explore principles derived from psychology which might be used by teachers in materials selection.

Language Continuity and Reading

The child develops language in a generally continuous pattern. Before he comes to school, he has mastered the spoken language of his environment. His first teacher, his mother, is a model for imitation as well as a source of affection and recognition. His language growth continues without interruption after he comes to school if the school program builds upon his first mode of communication, his oral vocabulary.

1 Prepared for a reaction meeting at the International Reading Association in Boston, Massachusetts, April 25, 1968.
He comes to understand that the printed word and the spoken word are representations of each other.

Because learning is a sequential process, materials for beginning reading should include familiar words that have some personal significance for individual children. Meaningful material is learned more easily and quickly than nonsense syllables; materials which are based on the natural vocabulary or sentence patterns of children which are related to the life experiences of children, are more easily comprehended. Moreover they help the child appreciate that written symbols represent the sounds of language and hasten the discovery of sound-symbol relationship.

**Interests and Attitudes**

Commonly used reading tests fail to measure important factors involved in learning to read, other than the learning of skills and abilities. The development of attitudes and appreciations, insights and interests, contribute as much or more to long-term growth in reading. The kinds of materials used to introduce children to the reading process influence the way they perceive reading, learning and school. Many children fail to see reading as useful, pleasant or relevant to their life styles and their life purposes.

Blom, Waite, and Zinet (1968) analyzed the content and style of first-grade readers. Stories which they described as "Polyanna" in nature ranked first in frequency in eight reading series. A content analysis showed no differences
among preprimers, primers, and first-grade readers. The stories were categorized as neutral and redundant without much content significance and variation. Happy and family centered, the children play in comfortable suburban settings with their younger siblings and their animals. The authors point out that the gestalt of basic readers represents a striking divergence from the realities of community, family, and child life and from what is known about child development. In life, the child of six or seven shows many independent behaviors. The boy in particular avoids girls and is less family-centered. He is curious and interested in the world around him. But his reading tends to exert a regressive influence on his developing maturity by its stress on family attachment, younger siblings and ambiguity in sex roles.

According to Huck (1965) reading interests and attitudes are more likely to receive attention in the basic readers developed in the sixties than formerly. Much is being done to improve reading textbooks so that there is much variety of choice for the teachers, who in 95 percent of our primary grades, use reading texts. There are books for children in urban schools and for children who live in suburbia. New multi-ethnic editions of books tend to portray something of the diversity of the American culture, although it has been argued that these, too, give rise to new stereotypes about people and their relationships to others. The one white child living in a Negro community has been criticized as appearing isolated and lonely.
Although the new multi-racial editions will be used in heterogeneous communities, many children living in the more homogeneous environments of the schools encounter the older stereotyped portrayals of boys and girls who are white, North European, and blonde. Others from the South European countries will be shown as organ grinders, peddlers, or fruit and vegetable vendors. The pleasant middle-class comfortable homes, the clean attractive clothes, the presence of numerous toys will suggest that poverty exists only in fairy tales. But all the children, in city or suburb, continue to be exposed and influenced by (1) anthropomorphic thinking which ascribes human qualities to animals and (2) animish which ascribes life and thought to inanimate objects such as the engines who try and the tugboats who cry. Social psychologists such as Klineberg (1963) view anthropomorphish and animish as unnecessary barriers to the intellectual development of children.

**Sequential Learning in Reading**

Learning to read is believed to be a process which develops sequentially in certain fairly well-defined levels of difficulty. The usual types of material designed to teach beginning reading seems to require few language skills and little differentiation from the learner. Gradually, the materials appear to become more difficult and the number of words used are increased, preprimers are replaced by the primers and first readers. One of the ways by which initial
difficulty is minimized is through the use of vocabulary controls which sharply restrict the number of new words introduced in any one selection. Other ways of limiting difficulty include the use of short structural units of meaning or sentences, and limiting the length of the selections or stories.

When children, however, are given free choice of reading materials, they prefer books that are less repetitious than the basic readers and perhaps more difficult to read. Or it may be that a larger vocabulary load which emphasizes the regularities of sound–symbol relationships, which comes close to the interests and experiences of children, may actually be easier for children and may shorten the period of dependence upon the teacher.

One asks what makes a sentence easy or difficult for a child to read. Choppy, unnatural sentences are more difficult to read than natural sentences of normal length. The arrangement of words in groups within larger structural units often contributes to meaning and makes the reading of language easier.

It has been suggested that reading materials which break units of meaning into their smallest bits in order to minimize error and to make possible the re-inforcement of correct responses may not represent the most efficient approach to learning. One can argue that the number of new words introduced in a text, or for that matter the application of a readability formula does not offer a valid measure of reading difficulty. If the
words used in the text are not part of the oral vocabulary of the child, they are not easy to learn, and the desirable relationship that should exist between a child's oral language and his reading no longer holds. The basic vocabulary of a child is what he understands and uses. For him the basic vocabulary of the reader may be unfamiliar and defeating as he tries to decode the word.

Controlled vocabulary is not the best indication of the relative difficulty, especially when one considers the concepts or new ideas presented. The conceptual structure of the disadvantaged child, for example, may be such that the child is not ready to cope with an abstraction even though words can be used to convey the abstraction and the words themselves appear easy.

The stilted writing frequently found in preprimers and primers do not represent normal speech patterns. The child may find it difficult to discover meaning in words which are familiar but which are patterned in difficult and strange combinations. The imperative form of the sentence, "See baby run" is complicated and sometimes hard to comprehend on the first or second try. The short three-word phrase contains two separate and distant thoughts.

Difficulty in reading appears to involve more than the presence of unfamiliar words or long sentences. The child's language is built up block by block of meaning units. Materials which employ familiar meaning units are more easily read and understood. A teacher, skilled in listening to the patterns of children's speech can identify the meaning units and match them to appropriate material
Differences in language between middle class and disadvantaged children suggest that restricted patterns of language contribute to difficulty in reading. Bernstein (1961) describes the language of poor children as rigid, restricted in meaning, reduced in elaboration, stressing the active rather than the passive voice, and relatively condensed. Children who use the restricted patterns of language are later limited by their language to relatively low levels of conceptualization in thought and in reading.

It appears that teachers of children who use restricted patterns of language would want to search for beginning materials which incorporate common structures; use simple sentences; emphasize the active rather than the passive forms of verbs; refer to the concrete rather than the abstract; emphasize gross aspects of environment rather than the fine details; provide less exposition, more dialogue, and less subtle distinctions. Short selections which do not delay the gratifications of closure or satisfaction of curiosity also seem indicated. Because learning to read is harder for the innercity child, it appears especially important not to use nonsense words. Materials which divorce words from meaning, interfere with the close relationship between language and thought, and tear down already established associations between meaning and language.

If reading consists of decoding written or graphic material
into already learned sound patterns of spoken language, learning becomes more efficient if the words used in the early stages are limited to those which have regular or stable relationships with sound patterns. In examining materials the teacher might ask if they actually simplify spelling-sound correspondence or do they burden the learner with the task of memorizing rules which later must be discarded. Do the materials attempt to teach many phonic items and conventions? Or do the materials develop more general techniques, understandings and insights?

The construction of materials which are designed to permit the discovery of sound-spelling correspondence probably results in learning that is retained longer. Successful self-discovery increases motivation to continue one's learning efforts, and contribute to favorable attitudes and interests in reading. However, the task of discovery should not be so difficult that success is not achieved. Success is an important aspect of the discovery approach to learning, for it provides immediate reinforcement and contributes to involvement of self.

**Individual Differences**

Although the authors of basal readers may develop an orderly sequence of practice, the teacher finds that it rarely fits any child precisely. To adjust to different levels of achievement and rates of progress in the various reading skills, the teacher supplements the text or at least modifies the way it is used by individual children. The best instructional
materials must be used with judgment and planning.

Typical basic reading programs, according to Gates (1962), are incomplete and rather poorly organized for the teacher who subscribes to the principle of wide individual differences. There is a need for new materials which make greater use of the child's natural approach to language. In the future we will move toward the analysis of learning tasks and the sequencing of sub-task learning for greater component task achievement. At present it seems wise to utilize a variety of approaches to learning, without focusing on any one method to the exclusion of others. There are strengths and weaknesses in all approaches presently used. No one set of instructional materials, no one prescribed method, no one new system is suitable for all children. What is required is highly differentiated instruction and more materials with greater variety of content.

Multiple Materials

The Cooperative Research Branch of the U.S. Office of Education supported 27 coordinated research projects on beginning reading instruction. One of the important general observations to be drawn from the studies is that teacher effect appears to be greater than the effect of method in teaching reading. Improving the effectiveness with which teachers utilize a variety of materials and adjust the materials to individual children may yield better results than devising a new method of teaching.


