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Developing Higher Literacy--Reading in the Content Fields

Leo C. Fay

DEVELOPING HIGHER LITERACY — READING IN THE CONTENT FIELDS

by Leo C. Fay

While the storm of controversy continues to swirl about methods of teaching reading the opportunity to help a vast majority of our children read better remains largely unclaimed. In the final analysis superior readers are determined not by the method by which they were taught but rather by how well they use their skills. This truism is as appropriate for the elementary school child approaching his reading lessons as for the doctor making a diagnosis or the lawyer defending his client.

Dean Francis Chase in discussing the decade ahead at the 1961 Chicago Reading Conference expressed his concern for the higher illiteracy which threatens mankind's further development and which is "a characteristic of those who see, hear, and even read, but will not understand. They cannot, in fact, understand because they have not developed the ability to carry on a transaction between the world of ideas imbedded in language symbols and the world of real persons, objects and events.... The higher illiterate can absorb and repeat ideas found on the printed page but he has not developed the ability to relate these ideas to the life around him."[1]

Dean Chase's comment as well as the Educational Policy Commission statement on objectives with its heavy emphasis on critical thinking reflect the growing awareness of the importance of not only teaching skills but also of guiding students in the application of these skills.

Although our post-sputnik awakening is of recent origin and only now being reflected in higher achievement and more literate performance, insightful men first issued a challenge in regard to this matter long ago.

In 1937 the Committee on Reading of the National Society for the Study of Education was responsible for preparing a yearbook for the Society. This group with William S. Gray as chairman and including Arthur Gates, Donald Durrell, Jean Betzner, Paul McKee, Gerald Yoakam and Ernest Horn, discussed among themselves how reading instruction might be improved. After due deliberation the committee concluded that, "In the judgment of the Committee the greatest opportunity for progress in teaching reading during the next decade lies in an intelligent attack on the reading problems that arise in the content fields."[2]

Today a quarter of a century later we can repeat the statement of the Committee as an appropriate challenge for us for the next decade. This challenge ap-

plies at all levels in the school and in all subjects where reading is a tool for learning. It means simply that as we teach about a particular topic our concern must be not only with what a student learns but also with how he can learn it most effectively. Concern for the reading and study skills is rightly a part of content subject teaching.

Unfortunately, it is embarrassing to raise the question as to how well we are facing up to this problem. In one national survey one of three English teachers said that they were not concerned with developing reading skills as their task was to teach literature and composition. Two out of three social studies teachers replied that they taught history and geography and that reading had to be someone else's concern.

How realistic is such an attitude? Will a good basic reading program do the trick so that the teacher in the subject areas can be freed from concern for reading and study? A good basic program will go a long way toward accomplishing this. However, one does encounter students poor in literature and history, who are at the same time good in general reading ability.

Many studies (Artley, Lee, Sochor) clearly show that specific attention is needed to master the specific problems in the different content areas. The student may have a background of basic skills but still needs direction in their use.

Fortunately, the reading problems of the different content areas can be classified into broad categories on the basis of a job analysis of content reading. Specifics can then be considered for each of the subject areas.

Assuming a good basic program exists what are the specific problems of content reading and how can they best be handled?

Vocabulary

When discussing problems of reading content materials, elementary and secondary teachers alike complain of vocabulary. Their complaints reveal that the vocabulary problem is not simple but has several ramifications that the teacher needs to be aware of in order to help his students.

First, many terms in the content fields are abstract concepts with many levels of understanding possible. For example, asking children of different maturity levels to define such terms as work, school, home, shelter, will reveal rather dramatically that many children will encounter difficulty as these terms are used more abstractly. The teacher thus faces a range of reactions and understandings to the words used to carry the concepts being dealt with.

Second, the technical vocabulary of many content areas is often built out of extending meanings of common words. Unfortunately the same word may move with the child as he moves from one subject to another. He may hear that molten metal runs and that there had been a run on the banks in 1932. In social studies a motion is carried, in science sound is carried by waves, in arithmetic he is to carry the tens to the next column – and so it goes. Even innocent appearing adjectives may trip him as he encounters barges with heavy loads creating heavy traffic patterns as they service the heavy industry along the Ohio River. These uses

of common words are so much a part of the teacher that he can easily lose touch with the problem they pose for the learner when he encounters them for the first time.

A third vocabulary problem relates to the vocabulary that serves as a basis for organizing knowledge and thinking within an area. For example, in mathematics special terms are used as a basis for quantitative thinking and the use of mathematical processes. Some of these terms are simple labels, others indicate processes, still others quantitative relationships – seven, add, subtract, ratio, diminish, increase, average, etc.

These are the blocks, for organizing ideas quantitatively and serve as a basis for problem solving. However, when researchers checked the understanding of such terms by elementary and secondary students the results were quite discouraging. Large numbers of students cannot think in an area simply because they lack the vocabulary base to do so. The results of misunderstanding make good stories to pass around over coffee in the teachers lounge but after we have had our laughs let's search out and do something about the underlying problem.

A fourth problem the child faces is that words are not absolute in meaning. They take on different shades of meaning in different contexts and may have different emotional tones as they move from one use to another. The inappropriateness of the simple insertion of synonyms without concern for how they fit shows the problem.

The emotionality of words is a problem we should be more aware of as we try to help students grow in their powers of critical thinking. A single example may serve to illustrate the problem. The typical American student has difficulty approaching the word *veto* as a neutral word as he encounters it in the context of the Russian's use of it in the UN or its use by recent American presidents or by his father who vetoes his request to stay up and watch the late show. He may feel for or against at different times but he typically reacts with some emotion to such a word.

A final problem for the teacher is the clever verbalizer who is adept at playing a type of linguistic ping pong with the words of the textbook without basic understanding actually being present. The teacher serves a question and the child bats it back. It may sound good but on listening carefully the child isn't speaking, the book is. To counteract this type of behavior instruction should demand understanding. Have children do something with what they read other than simply give it back. Paul McKee makes the point that we teachers expect too little and are too easy going with the result that children will give us what we are willing to accept and little more.

This is a formidable list of problems. Little wonder that teachers complain about the words and the problems they create. All too frequently, as Pope suggests in his couplet, "Words are like leaves and where they most abound much fruit of sense beneath is rarely found."

In all of this the teacher faces two problems. The first is to increase the size of vocabulary which involves bringing more words under some meaning con-

trol. The second is to extend understanding of those words already partially known. Fortunately, both extending and enriching vocabulary are accomplished through increased experience with language. The means are extensive reading, oral discussion, many guided first hand experiences, and certainly television which has a marked effect upon the vocabulary development of children.

In addition, there is another factor in vocabulary development which while perhaps not as obvious as the need for wide experience with language is nevertheless as vital. That is a compulsion on the part of the reader that demands an understanding of what he reads. He is not satisfied until he knows. He keeps pushing until he finds out. He is aggressive in his learning. This is an attitude – a feeling for meaning – that is a mark of the better student.

Mastering the Thought Structure of An Area

While vocabulary serves as the basis for developing comprehension, its development is but the first step toward the mastery of a subject area. Once basic understanding is present children can be guided to use the thought structure of an area. When working with science or math, with history or geography the problem – and it is a very difficult task – is to help children find the way of interrelating and reacting intelligently to the facts they have learned. The facts alone are rather obvious and are relatively easy both for the teacher to teach and for the child to absorb – at least temporarily. Unfortunately a student with only facts at his command is little more than a walking almanac. What this has to offer can be purchased for a few dollars but is not good enough. The intelligent understanding of a subject that is basic to exercising judgment is built upon more than information alone.

For example, Michigan is a composite of many things – Detroit and Ann Arbor, agriculture, the automotive industry, people. Facts could be taught by the thousand and children could do a fairly good job with typical achievement tests which emphasize the "who did what when" type of question. But questions that raise the issue as to why, what is the reason for this, is there possibly a cause and effect between these facts, do these specific observations have a common factor among them forcing children to work with interrelationships and to start thinking and reacting as geographers, historians and mathematicians.

The expressed likes and dislikes of children in regard to the content subjects are often revealing. There usually is a direct relationship between the substances of a program as reflected by using facts to build understanding and a positive attitude toward a subject. Negative attitudes are found when programs ignore substance in favor of a simple-minded diet of isolated bits of information. Little is more devastating than to continually undershoot the intellectual ability of a group of children.

For a child to learn to think as a historian or geographer, as a scientist or mathematician will of necessity take time and an opportunity to dig extensively on the

topics being studied. Obviously there simply must be a clearly defined restriction on the scope of the curriculum. To follow our highly concentrated textbooks through the vast jungle of topics found for example in the intermediate grades makes the task all but impossible good as the textbooks may be as summaries. The following quotation was selected to show the problems faced by the reader and to emphasize the need for more extensive reading than that provided in most textbooks to build understandings. It is not meant to be a general indictment of textbooks many of which are quite impressive.

As you read this passage follow the flow of thought as well as what is assumed as background on the part of the children.

> Australia is one of the self-governing members of the Commonwealth of Nations, which means that it is associated with Great Britain, but is not governed by them. Because Australia was first settled by the English and ruled by them until granted independence, which was not gained by war, there is a natural bond between them.
>
> Like our United States, Australia is a federation or union of states, each managing its own local affairs. The capital of Australia, Canberra is a federal district set aside in the same manner as our District of Columbia. The city was carefully planned by an American architect. A system of parks has been provided for, and all building is regulated by the government.
>
> The law-making body, called the Parliament, is made up of a Senate and House of Representatives, the members of which are elected by the people. The Governor-General is appointed by the English king or queen upon the recommendation of the Australian government, and he acts only according to the advice or with the consent of the Australian government.[3]

This passage is loaded with assumptions and information. It is an adequate summary statement of the government of Australia. But with a major idea for every ten words and a number of fairly abstract concepts the fifth graders who merely read the passage may remember some of the information presented. Understanding what is being presented is another matter, however. Instruction that is limited to such materials is like cordwood stacking. All the little facts become vitally important. We pile them up and then they appear on the inevitable objective tests.

In short, information alone is not enough. Knowledge must be organized into a meaningful structure. The significance of this for instruction is that:

(1) Learning is best organized about basic problems or topics.

(2) The solution of these problems calls for both extensive and intensive study.

(3) Learning can be made both efficient and meaningful by questions that are general enough to lead to the development of understandings

and yet precise enough for the child to know what he is looking for. For example, what steps are involved in processing iron ore into a usable material for industry? Of the major products of Southeast Asia which do we import and why? Questions such as the latter tend to be dead-end streets. Is the golden triangle in Philadelphia or Pittsburgh? Is shoe leather obtained from animals or trees?

(4) Learning is enhanced by having the children do something with the information they are working with. Have them organize it, make judgments about it, report it in various ways. In short, have them pick it up, feel it, taste it, digest it.

The Work-Study Skills

How to best use reading skills for learning in the content fields raises the third problem area of the work-study skills. Yes, the student can read but now he has to put this ability to use in several ways if he is to become an efficient student.

First, he needs to grow in his ability to locate information. Clever use of the textbook and its aids, of the table of contents and the index are all fundamental. Then he must know which reference books to turn to for different information. He learns how to use the library and reference resources as he searches out how a law is made, the distinction between two and four cycle gasoline engines, the meaning of federations, the rate of increase of oil production in the Soviet Union.

Secondly, as the young scholar, for this is what he is becoming, goes to different resources he needs skill in handling the different techniques for presenting and summarizing information. In straight text the task may be simply basic comprehension but in other situations he may have to read charts, graphs, tables, maps, pictures, and diagrams.

Third, critical skills come to play as the student selects and organizes materials. He may have to weigh one source against another, make judgments as to relevance and accuracy and he may have to learn that occasionally he has to hold off judgment until he gathers more information. Having an awareness of one's own ignorance is a difficult but yet important attribute for any student.

A final dimension of the work-study skills is to learn to know and make effective use of oneself. Of what real value are the other work skills if a child cannot discipline himself to start a task without wasting too much time, or seeing it through to completion, setting goals for himself, and knowing his own strengths and weaknesses?

The work-study skills lead to the "know-how" of handling the content of science, literature, math and social studies but it is no small task to develop them. Map reading involves skill in spatial relationships and directional orientation; charts and graphs are quantitative summaries that necessarily bring an understanding of number to play; encyclopedias, indices and libraries bring problems of organization and classification before the young scholar. There

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instruction in reading skills. The general background of experiences that the child brings to us and his emotional, social, and physical development at the time we are working with him are some of the factors which play a part in his reading success. But we should not expect the child to attain his maximum growth in reading unless we also provide a sound, sequential program of skills. Our instruction in word attack and comprehension will help determine the child's success or failure in reading.

(Doctor Durr is Professor of Education at Michigan State University.)

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is much to learn and much effort demanded from teacher and children alike.

Indeed, the words of the NSSE Committee on Reading are still relevant. "Our greatest opportunity in teaching reading lies in an intelligent attack upon the problems in content reading."

[1] Chase, Francis S., "In the Next Decade," CONTROVERSIAL ISSUES IN READING AND PROMISING SOLUTIONS, Supplementary Educational Monograph, Number 91, December, 1961, pp. 10-11.

[2] National Society for the Study of Education, READING IN THE ELEMENTARY SCHOOL, Thirty-seventh Yearbook of the NSSE, Chicago, 1938.

[3] Hall, DeForest and Hatch, Roy W., THE EASTERN HEMISPHERE, Boston: Allyn and Bacon, 1953, p. 326.

(Doctor Fay is Professor of Education at Indiana University.)

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