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Reading is. . .

it is what man
made because we
could write letters and
we wouldn't have to talk
to tell somebody something.

— Elizabeth

RESEARCH PERSPECTIVES:

Putting Basic and Applied Research in Context

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An examination of research processes and their educational implications can be logically based upon a discussion of the purpose of educational research. This fundamental question has a number of answers, answers which have implications for divergent schools of thought regarding the nature of effective research.

Button (1977) states that "the only purpose of educational research as such is improvement of schooling." (p.243) This viewpoint is in keeping with the tenets of American pragmatism which see knowledge as the path to improvement, the path to change. Such improvement, however, is further defined by Button as:

- a. alternative approaches to instruction and curriculum,
- b. the basis of changing organizational patterns and policies,
- c. the basis for better questions,
- d. fresh perspectives of schools.

This is the popular consensus regarding the purpose of research. It is typically promoted by government funding agencies, classroom teachers, school administrators, and practitioners in general.

In marked contrast, Kerlinger (1977) argues that the basic purpose of research is to produce theory. It is only through theory, says Kerlinger, that we can understand and explain the phenomena which are around us.

This is the view of the researcher with little direct connection with educational practice.

This column will extend these dichotomous views of educational research to an examination of the difference between basic and applied research and their potential for creating an impact on classroom instruction. The thesis here is that basic and applied research exist on a continuum which is not related to the degree of resulting educational change. The influence of research is more dependent upon other characteristics, such as social values and credibility.

Shaver (1979) describes these two types of research. Basic scientific research has the goal of knowledge and theory generation. The person conducting this type of research is not primarily concerned with practical consequences or moral implications. On the other hand, applied research seeks to explain and understand teaching and education. "Here validity of practice is tested with the hope that results will be generalizable beyond the specific setting of the study and sometimes, even directly applicable to theory building." (p. 4)

Both basic and applied educational research have implications for changes in classrooms. Kerlinger's (1977) position is that because basic research is *not* tied to a particular problem situation it will ultimately

have more far-reaching effects than applied research. The results can be generalized to a wide range of situations. He cites the field of reading as an example:

Answers to reading problems lie not in many researches aimed at telling teachers how to teach reading. They lie in research aimed at understanding the many aspects of human learning and teaching connected with reading....We must study reading in the context of perception, motivation, attitudes, values, intelligence, and so on. (p. 7)

Extending this approach, applied research has, by definition, a more limited impact than basic research. Findings would apply to elementary classrooms, or perhaps to an even more limited setting, such as urban lower elementary teaching situations. This is not to say, however, that applied research is less useful; simply that the role is different. For example, one instance of applied research would be to test a method of teaching reading. The research would tell something about this method; but, in addition, if the research were properly drawn from a theory, the findings could also test the theory itself. Shaver (1979) suggests that applied research findings

...do, at the least, suggest boundaries of generalizations. The delimitation of applicability can be as important as theory confirmation to those who want to use research evidence to make decisions about practice in the schools. (p. 5)

There have, in fact, been examples of both basic and applied research which have had a major effect upon the direction and emphasis in American reading instruction. These have been identified by Russell (1961) in a classic report which selected and described ten pieces of research which he felt have most dramatically influenced teaching.

An example of far-reaching *basic* research cited by Russell is the series of studies by Buswell (1920) and Buswell and Judd (1922) which had two foci: 1) the advantages of silent over oral reading, and 2) the differential nature of the reading process itself. This work was the first examination of reading which led educators to the conclusion that reading skills vary with different materials and purposes. The design of these studies, however, centered upon variables not connected to school setting.

Russell (1961) also cites an example of *applied* research which has greatly affected the reading field. This is E.L. Thorndike's (1917) study of mistakes in paragraph reading. Here Thorndike's findings emphasized the differences between merely saying words and understanding meaning.

By illustrating the wide variety of errors children make in the comprehension of a relatively simple paragraph, he (Thorndike) demonstrated the need for instruction in getting meaning from the printed page. He also raised the issue of cause of misunderstanding and attributed it in part to the over-potency of certain words, thus foreshadowing some recent psychological work on individual perceptions. (Russell, 1961, pp. 74-75)

The very fact that the findings of both of these studies seem obvious to us today attests to the great extent of their influence. These concepts were major departures from the popular approach to reading instruction in the early twentieth century.

What then does characterize research which has had an impact upon classroom instruction? Many have concentrated upon the basic-applied research distinction as an important issue in identifying effective research. Some support a concentration on "pure" research, the basic approach (Thorndike, 1928; Kerlinger, 1977; Jackson and Kieslar, 1977). Others argue for a broader approach, which would also emphasize the potential of ap-

plied research (Slavin, 1978; Shaver, 1979; Strike, 1979).

However, the most critical characteristics of research which has made a difference seem *not* to relate to this particular conflict. Purposes can vary and the research can still have an important contribution, if other conditions have been met. These conditions relate to social values and credibility.

The most influential research in our recent history has been that which concentrates upon the most critical problems of the day (Russell, 1961; Singer, 1970; Clifford, 1973). The topics were relevant. Identifying relevant problems, however, is a task laden with personal values. Strike (1979) has said,

... human problems are rooted in a kind of theory. Situations do not become problems unless we approach them with values which specify what properties these situations *ought* to have. . . our ideologies turn events into problems, and . . . tell us what human needs are....(p. 10)

This interaction between research problems and social values has major implications for the extent which research results are used in the classroom. Those findings which conflict with "conventional wisdom," which do not support the popular ideologies of the time, have less chance of having a substantial impact. Singer (1970) identifies some excellent reading research which had very little impact for this reason. He describes the 1939 study of Gates, Bond, and Russell which identified effective variables to determine reading readiness as one example. Another is the body of research which indicates that class size has no effect upon student achievement (Clifford, 1973). Kopp (1976) summarizes this dilemma when he says, "The truth does *not* make people free. Facts do *not* change attitudes." (p. 13)

The congruence between research topics and values is closely related to the issue of credibility, credibility not only of an individual study, but of the research community itself. Kemmis and Grotelvelschen (1977) warn against educational research which is too far removed from education, and focuses upon problems of other disciplines, such as sociology and psychology. One could extend this thesis into a defense of applied research; however, the applied-basic distinction is not so crucial as the larger notion of credibility.

While many do doubt the applicability of some research to given school settings, often this doubt is a function of the way in which the findings are reported. Research results often need to be "translated" into classroom practice discussions. Singer (1970) discusses the developmental steps which research must go through if one would expect to achieve an impact. These steps can lead to sets of procedures for classroom application. But procedures are not an immediate output of the research process, especially with basic research. Here there is far more "translating" to do. And without this intermediary work the results of basic research appear less credible, less relevant to the everyday problems of the classroom teacher.

Research methodology, statistics, and reporting style are important considerations for the researcher, but they divert attention from the broader examination of the problem. Often reactions of educators in general to basic and applied research are influenced by methodology and reporting style rather than a serious consideration of the results and their potential for application.

Both basic and applied research have an important role not only in improving schooling, but in verifying current practices. The degree of influence, it seems, will be to a great extent determined by the congruence between the prevailing values among educators, as well as the extent to which research can maintain its credibility.

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TEACHING INTERMEDIATE STUDENTS TO INTERPRET FIGURATIVE LANGUAGE

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The phrase "rustling of the leaves. . ." holds little mystery for an adult reader; but a third-grade Southern California reader, intimately acquainted with the television world of cowboys and Indians, exclaimed in sheer bewilderment, "Why would anyone want to steal leaves?" That was a reasonable question asked by a capable decoder who was unable to make sense of an unfamiliar word connotation.

The inability of readers to comprehend figurative language clearly is a problem encountered by teachers of all age groups, even of college students. The inability can affect the gifted as well as persons who are not fluent in standard English. Even the fluent speaker of standard English may be at a loss when encountering a local dialect or regional idiom.

Students are bewildered by figurative language because it does not mean what it says. Rather, it creates ". . .visual and emotional

images. . .and increases(s) understanding by comparing one idea or thing with another." (Roe, et al., 1978) The user or figurative language does not mean "wild horses couldn't drag me away" or "tickled pink" or "I'd give you the shirt off my back." To comprehend what each of these expressions means requires an awareness that the literal meaning is impossible or most improbable. Some expressions are more obvious than others. A small child soon realizes that it is not really "raining cats and dogs," but the same child might spend a long time hunting the "elbow grease" when told to "apply a little elbow grease" to a project.

Another problem in comprehending figurative language is that it is ever changing. Common expressions enjoy a time of popularity and then fall into disuse or are ignored by the next trend-setters. However, many expressions become a part of our literary heritage and must be

taught to each new generation of readers.

Hitty, the little doll in Rachel Field's book of the same name, sums up this problem as she reminisces about a comment overheard years before when a mother complained of a little girl who was "spoiled as a popinjay," and a puzzled Hitty thought,

I have never been able to discover what sort of bird a popinjay might be. One does not hear them mentioned nowadays, so I suppose the race must have died out years ago.

The interpretation of figurative language can be introduced to students in a variety of ways. If a teacher is not certain the class understands similes, a little book, *Similes*, by Joan Hanson, provides a good starting point. This source can be easily augmented by the Sunday comics, which contain a wealth of material, or by a trade book such as *The Phantom Tollbooth*.