

● Research in Review

COLUMN EDITOR: JAMES RATHS

FUNCTIONS OF CURRICULUM RESEARCH

JOHN S. MANN

SEVERAL recent curriculum papers have stressed the importance of distinguishing clearly between the realms of curriculum and instruction.¹ The critical point of the distinction seems to lie in the fact that the outcome of instruction systems is conceived of as learning whereas the outcome of curriculum systems is conceived of as classroom situations prior to and surrounding teaching, learning, and other variables. This distinction generates a corollary distinction between research in curriculum and research in instruction.

For obvious reasons teaching and learning have been the traditional focus of educational inquiry. Correspondingly, research in education has in the vast majority of cases taken some aspect of teaching as its independent variable and some aspect of pupil learning as its dependent variable.² I

would suggest the usefulness of designating all such research as instructional research. Even when such factors as teacher personality are examined as independent variables, if the dependent variable is an aspect of learning, I would argue that teacher personality is being construed as an instructional variable and that the research consequently is aimed at acquiring knowledge about instruction.³

Since the ultimately interesting outcome of education is its effect upon children, it makes sense, on the face of it, that the dependent variable in education research should be some aspect of learning. There are several reasons, however, for examining "the classroom situation" itself as an outcome variable

learning outcomes, and one study speculates upon non-instructional outcomes of the procedures under investigation. ("A Comparison of Two Methods of Reading Supervision," Katherine A. Morrill.)

³ Many of the interesting studies of the 'fifties which examined such independent variables as pupil- or content-centeredness, democratic-authoritarian-laissez faire attitudes, etc., are cases in point. It must be recognized, however, that the dependent variables of the most interesting studies among these do push the limits of my definition of instruction. See, for example: Ned Flanders, "Teacher-Centeredness vs. Learner-Centeredness," *Journal of Educational Research* 45:100-10; 1951.

¹ For example, "Structures in Curriculum," James B. Macdonald. A speech delivered at the University of Wisconsin-Milwaukee, May 23, 1966. (Mimeographed.)

² Thus, for example, the twenty Office of Education first-grade reading studies reported in *The Reading Teacher*, Vol. 19, No. 8, May 1966, all deal with methods of teaching reading and the effects of these methods upon some aspect of learned reading behavior. Several of the studies deal also with non-reading

without regard for learning that supposedly results from instruction carried out within that situation. Such research I would designate "curriculum research."

The reason with the most immediate applicability is that the knowledge acquired by such research might be expected to plug some of the gaps in our present technology of instructional research. Suppose, for example, that we want to measure the effects upon reading achievement of a one-to-one, as compared to a grouped, instructional relationship. Our operational definition of the one-to-one instructional relationship may be a situation in which all reading instruction is conducted in conferences between the teacher and individual children. This situation is easy enough to bring about. Yet the rationale for such a study typically would involve assumptions about the one-to-one relationship which are not specified in the operational definition.

One might be interested in the one-to-one situation, for example, because one assumes it to be a less threatening situation for some children than the grouped situation. The unexpressed motivation for the research project itself may well have been a desire to know about the comparative effects of more and less threatening instructional situations upon reading achievement in some particular stratification of readers. I would speculate that an unrecorded observation of workers on such research projects might be "they had their conferences, but somehow it wasn't what we really meant by a one-to-one relationship." A conclusion often arrived at is "we can't really overcome the teacher personality variable."

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In designing a follow-up study, the investigator will want to do something to increase his control of the independent variable.

Functions of Curriculum Research

It is at this point that curriculum research literature could be most helpful to him. He could ask of it: what do I need to do to bring about a classroom situation in which there is a high likelihood that the teacher will behave in a threatening or non-threatening way? There are several ramifications to this question which characterize it as a question specifically for curriculum research.

First, its implied dependent variable is a situation and not learning. Second, its context is a classroom. There are many kinds of classrooms, but there is a distinction between a classroom and, for example, a laboratory. Bringing about or minimizing threat in a laboratory is a different proposition from doing the same in the ongoing context of a school program. The factors which it is possible to control, as well as those which it is necessary to control, are different.

Third and most crucial is the "high likelihood" dimension of the question. For, while acknowledging the importance of factors like teacher personality which are extremely difficult to manipulate, curriculum research might address itself to the identification of optimum conditions for the emergence of given situation outcomes. That is, rather than approaching the "non-threatening" situation through manipulation of teacher personality, curriculum research approaches it by asking what kinds of

events prior to and surrounding the teaching situation minimize the possibility of the teacher behaving in a threatening way. The researcher may want also to ask, for example, what kinds of events maximize the possibility of a teacher acting in an accepting way, or in a democratic or any other way. Or, conversely, he may ask "what effect upon the classroom situation will the introduction of a given set of materials have?" or "what effect upon the classroom situation will the introduction of certain value propositions into the curriculum guide have?"

In addition to teacher behavior outcomes, the curriculum researcher may examine such dependent variables as the degree of trust among peers, the extent to which pupils are willing to risk expression of an idiosyncratic creative response to questions, the extent to which learning is entered into in the spirit of play, etc. These are curriculum questions rather than instruction questions because the implied dependent variables are dimensions of the classroom situation prior to and during learning rather than learning itself. The answers to such questions can help the instruction researcher gain control of his independent variables by controlling what otherwise tend to be uncontrolled intervening variables.

There are other reasons for examining the relationship between independent curriculum variables as input and classroom situations independent of learning as outcome. There are cases in which we already know, on the basis of laboratory or other limited research studies, that a given situation does have a desired effect upon learning, but we do not know how to bring about that

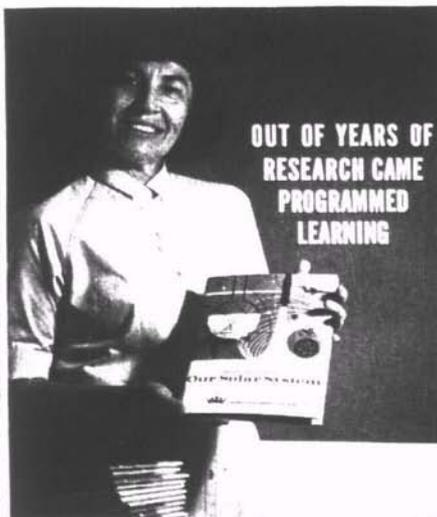
situation on a large-scale classroom basis.

Or conversely we may know that a given situation has a deleterious effect upon desired learning outcomes and not know how to eliminate or minimize that situation within the context of ongoing classrooms. For example, we have reason to believe that children tend to become more "creative" in a situation in which the traditional rigid distinction between work and play is minimized or eliminated.⁴ But aside from the impractical solution of hiring more teachers who do not operate in terms of this distinction, we know little about how to bring about this situation. The curriculum researcher might investigate the effects upon the strength of the work-play dichotomy of such independent variables as the presence of a soundproof woodworking room adjacent to the classroom, or the deletion of instructional objectives from the teacher's curricular guide, or the introduction of a given type of teaching material or strategy.

Another reason for conducting curriculum research is to shed light upon the often neglected side effects of new teaching procedures or materials.

An analogy to the practice of medical research seems appropriate here. When a new drug is tested, there is systematic observation not only of the condition the drug is intended to alter, but also of related systems in the body. The researcher asks not only will this pill cure a disease of the kidney, but also

⁴Torrance cites work of his own as well as other studies which support this inference. E. Paul Torrance. "Education and Creativity." In Calvin Taylor, editor. *Creativity: Progress and Potential*. New York: McGraw-Hill Book Company, Inc., 1964. p. 101-102.



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how will the pill affect the digestive system, the nervous system, etc. In education we fail to do this. When we test a new math program we tend only to examine the effects of this program upon achievement in mathematics. We assume that gains in instructional efficiency occur without concomitant changes in other important classroom variables.

Curriculum research would examine that assumption by asking such questions as: "What effect will this instructional innovation have upon such curriculum variables as the quality of interpersonal relationships among peers or between pupils and teacher, or upon the availability of choice situations; what is the impact of this program upon pupils' willingness to risk expression of original or divergent ideas; what sorts of conceptions of the child as learner, the adult as teacher, and the written word as expression of reality are implicit in and communicated by the structure of the program?"

Answers to such questions as these will help us see instructional innovations in a context of gains and losses which are concomitant to the intent of the program in question. This may lead to a sounder basis for evaluating innovations than is now available to us.

A fourth reason for conducting curriculum research is the growing conviction among some curriculum theorists that our school endeavor is already too much given over to instructional objectives and their attendant technology, and that lost in the shuffle is both our

humanist conviction of the inherent worth of some kinds of situations and our proper humility with respect to the very small amount of knowledge we have concerning the control of human destiny.⁵ In our present state of ignorance concerning the control of any but the most mundane aspects of human experience, we are in danger of putting all our energy into that which we know the most about at the expense of that which we care the most about.

Along with our galloping progress in instructional technique, this position asserts, we must take steps to assure that our children are experiencing life situations which are, from some philosophical perspective, in and of themselves good. Curriculum research here could help us know how we could assure our children of the experience, for example, of feeling playful, during the course of an increasingly long and intensive instructional day. One might hope eventually for a close interaction in school planning between the fruits of research in curriculum and in instruction.

Finally, curriculum research needs to be done because the phenomena are there. One might predict safely that unforeseen uses of such inquiry will emerge in time.

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⁵See, for example: Dwayne Huebner, "Moral Values and the Curriculum." In *Moral Dilemmas of Schooling*. Columbus: Charles E. Merrill Books, Inc. (In press.)



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