

Needed Research: Emphasis on the Future

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"It is never too late to conduct badly needed research to identify our greatest accomplishments and most humane insights and to determine what effect sharing in the best and noblest has on the development of humane individuals."

MANY kinds of activity are confused with research, and many phenomena are confused with curriculum. Some writers maintain that such confusion, if not actually wholesome, is not worth clearing up. No researcher can accept this position, however. Precise terminology, reflecting clear thinking, is essential to research.

Research, Curriculum, and Curriculum Research

"Curriculum" is one of the most distinctively educational of concepts. Unlike such others as "learning," "organization," and "interaction," it is neither borrowed from, nor shared with, any other discipline or profession. Curriculum research, therefore, is not only a branch of educational research, it is one of its purest branches in the sense of being least peripheral or derived.

While it has been common for years to question whether a particular piece of work

qualifies as *research*, only recently (Gowin, 1972; Kallós, 1974) has attention been directed to the question of whether a particular piece of research qualifies as *educational*. In the present context it is appropriate to ask further what qualifies an instance of educational research as *curriculum* research.

A curriculum (or curriculum category or curriculum item) is an artifact, a product of human decision making, an expression of human intention having to do with other human beings. The intention is arrived at within a particular culture and pertains to the transmission of some element of cultural content. There are many kinds of intention in the education enterprise, but only those pertaining to the transmission of a segment of cultural content constitute curriculum. It serves no useful purpose, least of all that of research, to include under the same rubric such other intentions as those pertaining to educational environments, learning experiences, instructional procedures, or characteristics to be developed in learners.

Like all other intentions, those labeled "curriculum" are arrived at by one set of processes in a specific context and are carried out through other processes in another context. While the intentions themselves

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must be conceptually distinguished from the processes in which they originate and function, curriculum research properly concerns itself with the manner and circumstances in which the curriculum development process occurs and the way in which curriculum is used in instructional planning and evaluation. However, since the latter two processes are themselves legitimate areas for research, a certain amount of care is necessary to include under "curriculum research" only those questions which concern the effects that variations in curriculum have on them.

Similar distinctions are warranted with respect to two other phenomena which are related to, but differentiable from, curriculum and curriculum development: educational goals and cultural content. Thus, although the derivation of educational goals is not a proper concern of curriculum research, their effects on curriculum decisions is; by the same token, not all epistemological inquiry is curriculum research, only that which bears upon the transmissibility of knowledge and states of knowing.

The development and use of curriculum require knowledge of appropriate criteria and rules for applying those criteria. Curriculum research should not, however, be confused with curriculum development or with the application of curriculum to instructional planning or educational evaluation. Curriculum research is concerned with the validation of criteria and operational rules used in these processes (Johnson, 1970-71). The difference between their application and their validation is what distinguishes the practitioner from the researcher.

Several other enterprises are often mistaken for curriculum research:

—Mere description of a curriculum or a curriculum development activity (reporting)

—Counting how many institutions offer, or how many people study, particular curricular categories (social bookkeeping)

—Expounding ideological positions regarding preferred curricular contents, organization, or development procedures (polemics)

—Gathering information about learners and communities for use in curricular decision making (data collection)

—Comparing the effectiveness of various teaching procedures or sets of materials with different categories of learners in various settings (*instructional research*)

—Forming judgments of worth about specific curricular products or processes by the application of explicit standards to accurate descriptions based on reliable observation (*curriculum evaluation*).

Research is concerned with the generation of valid knowledge claims, and if those claims pertain to criteria and rules relating to intentions as to what is to be learned and taught, then the activity of generating them is curriculum research.

Curriculum Scholarship and Scholars

Even under carefully narrowed conceptions of curriculum and of research, the field of curriculum research that remains is wide open. Practically nothing has been done in it. We know very little for sure about causes and effects pertaining to the content, structure, source, functions, and development of curriculum. We have few validated criteria for either selection or organization and fewer validated rules for applying those we have. At the current rate at which we are pursuing genuine curriculum research, our great-grandchildren will know little more about these matters in our tricentennial year.

The dimensions of the curriculum research field can best be understood by keeping in mind that curricular objects must be either dependent or independent variables. When curriculum is the dependent variable, we are concerned with two kinds of independent variable: the characteristics of the process by which the intentions are reached and of the context in which that process occurs. When curriculum is the independent variable, two kinds of effect are of interest: those in relation to the educational goals intended to be served and those pertaining to the instructional and evaluational processes in which the curriculum is used.

For all four types of problems, it is possible to manipulate variables experimentally, in either simulated or actual situations, to determine the effects of different curriculum development procedures and conditions in one set, and the effects of different curriculum content, language, and organization in the other. Empirical studies in naturalistic settings are also possible. Cross-cultural, comparative studies of the effects of contextual factors are necessary, because such factors seldom admit of manipulation.

Analytical procedures, formal and informal (Roberts and Russell, 1975), must be relied on to increase our understanding of the cultural content of which curriculum is made and of the socio-political-economic factors which influence curriculum decisions. Statistical approaches, such as factor analysis, can be employed to identify the criteria actually used in making curriculum decisions and the weight attached to each by different classes of developers under various conditions. It might even be possible to unravel the combinations of curricular provisions which lead to the development of particular human characteristics that are sought as educational products through various institutions and programs. The measurement problems in such an investigation would be formidable, indeed, greatly overshadowing the statistical ones, but of what avail is it for us to seek greater agreement on more precisely stated educational goals, if we have no firm basis for designing the curricula through which the goals can be attained?

The qualifications that are obviously required to conduct the kinds of study which might generate the understandings needed for more intelligent curriculum development more or less dictate who must conduct them. It is not a task for which most practitioners—teachers, administrators, or curriculum directors—are either qualified or have time. Nor are they expected to do it. Practitioners are accountable for four things: for knowing the best current educational practices and their rationales, for acquiring the competence to carry them out, for using sound judgment as to what should be done under particular circumstances, and for doing it.

They are not accountable for conducting research.

This does not preclude their carrying out curriculum research if they have the competence and interest. More appropriately, however, practitioners can contribute to curriculum research by identifying researchable problems, using research findings in development, and cooperating in studies designed and directed by others.

These others may be full-time researchers associated with an institute or laboratory, but in the United States the expectation is that most research in most fields will be done at universities by scholars dividing their time among teaching, research, and service. Most curriculum research is likely to be carried out under the auspices of a school of education, though scholars in other fields, notably epistemology, axiology, history, and the social and behavioral sciences, could make extremely valuable contributions, if their interest could be aroused.

Few professors of curriculum have displayed much inclination or aptitude for scholarly study of the technical questions relating to curriculum and its development. They have chosen instead to become widely conversant with existing and new practices and programs in the field, and they have tended to engage in ideological and theoretical debates in preference to research of the kind discussed earlier. Even some of the brightest of the younger curriculum scholars, though presumably better grounded in research methodology, seem to be attracted more to curricular missionary work than to painstaking, rational scholarship on fundamental technical questions.

Research Agenda for the Future

Futurologists maintain that there are alternative futures among which we can choose and that we can deliberately bring our choices into being. This is, of course, an extension to a longer time frame of the basic assumption underlying all educational planning, including curriculum development itself.

There are two "time zones" in the future—one, bordering on the present, with characteristics that are for the most part foreseeable, the other more remote and unpredictable. The curriculum research agenda for the immediate future is defined by the unsolved problems and knowledge gaps of today; all we can know of the agenda for the more distant zone is that it will in part be determined by the research methods and well-founded generalizations that are established in the meantime.

Certain features of the current scene can provide both impetus and specific direction for the general search for valid criteria and rules. For example, the macro-curricular contraction forced by economic retrenchment furnishes a vivid reminder that curriculum decisions are essentially political, made by those with the power to see their values prevail. We need research to determine precisely how rational considerations influence the political process and under what conditions and by what mechanisms those considerations are most effectively brought to bear. The continuing corrosion of liberal learning under federal policies which distort curricula by an overemphasis on worker development and economic motivations in education suggests the need for studies of the ultimate consequences of this trend on social progress and individual happiness. The recent feeble, and now waning, reaction in behalf of a more humane emphasis in education might have prompted some important curricular research had it not been for the preoccupation with learning environments and teaching methods to the neglect of what should be taught. It is never too late, however, to conduct badly needed research to identify our greatest accomplishments and most humane insights and to determine what effect sharing in the best and noblest has on the development of humane individuals.

Many other contemporary manifestations raise researchable questions relating to what ought to be taught. Consider the shift toward pluralism and the massive efforts at compensatory education. What effects can be predicted with respect to

societal cohesiveness and individual opportunities when the curricula for various subgroups have little in common? Consider the moral confusion that besets both young and old. How can guidelines be generated for the selection and organization of tested moral principles for the curriculum? Consider the rapidity of social change and the social implications of ever-advancing technology. Can we identify what learnings equip individuals to define and control progress as well as cope with it? Consider the findings of the National Assessment of Educational Progress. Can we determine whether we are not teaching well enough or not teaching the right things?

It is true that the phenomena with which we deal are artifactual and do not obey laws of nature. But unless we learn more about their inner workings and the probable consequences of various decision alternatives, those most crucial educational decisions—those that concern what is most worthwhile to teach in the limited time that is available—will continue for the most part to be made on the basis of guesswork and conventional wisdom instead of validated knowledge. Producing that knowledge is not a task for amateurs. It will get done only if our best scholars get to work on it and if all professionals concerned with curriculum support their efforts and make use of their findings. We whose stock in trade is knowledge, which we equate with power, must surely recognize how much our own lack of it lessens our professional effectiveness.

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