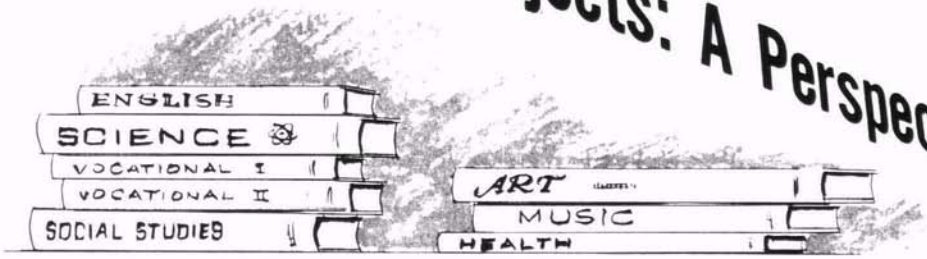
Curriculum Projects: A Perspective



ARTHUR R. KING, JR. *

THE large-scale curriculum project is a dominant fact of contemporary schooling. Projects abound in mathematics and the sciences; social studies, English, and vocational studies are increasingly being served; fewer projects are undertaken in art, music, and health.

These major projects have, over the past dozen years, put into the hands of teachers and supervisors a wide array of packages of materials from which selections may be made, have spawned an entirely new professional specialty, and have aroused a host of reactions. These reactions run the gamut from cries of outrage, to well-conceived challenges, to full acceptance and delight.

The range of emotions expressed is paralleled by the range of interpretations of the phenomenon itself. Much of the dissonance springs from the "new" label, as in "new math," for example. Actually, the two essential elements in schooling have gone unchanged for decades, perhaps centuries. These are a teacher and a methods/media/materials set.

The teacher remains the master of the instructional situation, despite such innovations as team teaching, instructional television, computer scheduling, paraprofessional assistance, programmed materials, and now the products of large curriculum ventures. The sum of the teacher's professional knowledge, skill, commitment, insight, experience, values, attitudes, fears, aspirations, and other deeply personal characteristics makes up a *gestalt* which structures and permeates the instructional event.

The other element is the methods/media/materials set assembled by the teacher for classroom purposes. The individual's skill in manipulating and personalizing this set of techniques and devices to achieve objectives fuses the two essential elements into a single context in which children learn.

This brings us to the key consideration: the source of the methods/media/materials sets or packages. Both traditional theory and conventional beliefs of school men hold that the individual teacher, or the group of colleagues in a single school, determines educa-

* *Arthur R. King, Jr., Researcher, Educational Research and Development Center, and Professor of Education, University of Hawaii, Honolulu*

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tional purposes, plans courses and sequences of courses, designs and tests materials, selects media, evaluates instruction, and controls the entire cycle. In reality, however, methods/media/materials sets have been assembled largely from the shelves of educational suppliers, including textbook publishers, equipment firms, testing agencies, and the like. Rarely in my experience have I encountered teachers who produced substantial amounts of original materials or who had any means of effectively disseminating their ideas or products to the profession at large.

If this picture is accurate, then the potential impact on large curriculum development projects can be simplified. The input of materials and media from national sources is not new; rather, we have control over the design and construction of teaching materials in the hands of disciplinary scholars and educational professionals and only distribution in commercial hands.

I emphasize the teacher's traditional role of augmenting and personalizing the use of instructional materials sets in producing the learning situation. Schooling still proceeds essentially by the interaction of persons, and in fact the teacher's role as exemplar or model in the field of study enhances his or her importance in teaching the "new curricula."

The Large-Scale Curriculum Project

Large-scale curriculum enterprises have certain distinguishing marks. A first mark of the project is the use of some variant of the systems approach, which attempts to account for the full set of parts in relation to an organic whole. The project usually maps out and follows the full sequence of (a) the definition of subject matter and inquiry skill by scholars, (b) the design of the course(s), (c) the selection of teaching strategies, (d) the selection of media, (e) the design of evaluation strategies and materials, and finally (f) the preparation of plans and materials for retraining teachers who will use the sets or packages.

Second, in their general approach to the

curriculum problem, the projects reflect the dominant role played by specialists in disciplinary fields. Whether the effort is mounted by a professional society of academic scholars, a regional laboratory, a consortium of school districts, a joint university-state agency, or a publishing firm, it is members of the academic disciplines who set the approach and put the stamp of authenticity on the materials package. In contrast to commercial publishing ventures, which usually expend relatively little on design and development but much on promotion and sales, the major curriculum projects put millions of dollars into theory, design, development, and testing before they release materials for dissemination.

Thanks to large grants from government and foundations, they have had "risk capital" to use in conceiving new strategies for solving perennial problems. Project teams are practicalists. Hence they focus on such "useful" matters as the essential concepts and characteristic methods of their field of inquiry and how to make these comprehensible to students. They are not too interested in such traditional concerns of educators as an overarching, total design to the curriculum, children's needs, societal concerns, or vocational requirements.

A third characteristic is an apparent consensus about approaches to curriculum design. Most developers have taken some variation of the Brunerian stance, affirming the disciplines of knowledge as the functional divisions of intellectual activity today. Most projects have been in single disciplines (PSSC, CHEM Study, SMSG, and BSCS are examples). Some more recent projects are trying general approaches to families of disciplines (AAAS, SCIS, and COPES in elementary school science, for example). A new project at the Hawaii Curriculum Center takes "a pluralistic view of sciences."

The scope of the projects varies. Some develop single units for incorporation into existing programs. Others aim at a one-year course. Still others provide a sequence for two or three years of schooling or even the whole span from kindergarten through grade 12.

The intended audience typically consists of students of average to superior ability. A few programs are pegged specifically to college aspirants, a growing number to slower or less able students. There is some interest in preparing "culturally relevant" materials for minority or "disadvantaged" groups, but with little solid accomplishment thus far.

The lack of a total framework into which these instructional "components" are to fit is lamented by some writers. Of this I have more to say later.

A fourth characteristic of major projects is a more or less definable range of approaches to instruction. Project staffs typically stress "inquiry" or "discovery," "heuristics of learning," "concepts orientation," "inductive approaches," "critical analysis," and "authentic laboratory approaches." Although these notions are far from new, either in the educational literature or in the practice of teachers, it is only recently that such approaches are being incorporated into the actual design and production of the materials package.

The fantastic rate at which knowledge is piling up has prompted curriculum makers to shift instructional strategies. Hence new project materials have emphasized (a) depth of experience in a few topics ("postholing"), in contrast to broad coverage, (b) concepts and generalizations rather than memory, and (c) inquiry and analysis rather than the accumulation of the "rhetoric of conclusions."

Few projects to date have exploited the use of "big media" such as instructional television, computer-assisted instruction, or whole filmed courses. Science packages usually include laboratory equipment; some attempt "academic games." Programmed learning materials are rarely used.

All courses assume a better-than-average to excellent teacher to make effective use of the materials which, one designer says, go only ten percent of the way toward "true inquiry" orientation.

On the other hand, observers report that only a small proportion of teachers using the materials exploit their full potential; most use them rather as a better textbook in the traditional way.

Implications of the Movement [2]

The curriculum project movement has a number of implications for teachers. Teacher roles are becoming more precisely defined, requiring, for example, a "physics teacher with background in PSSC" rather than a "science teacher who can do physics."

Consequently teacher education, both preservice and in-service, becomes more specific and demanding. Depth of knowledge of one's discipline, including both conceptual and methodological structures, is called for. Language teachers without oral/aural command are unemployable. In some areas near-native speaking competence plus experience in the language culture is required. These demands are especially acute for the teacher in the self-contained classroom or the jack-of-all-trades in the small departmentalized school.

Many teachers find the professional and intellectual challenge stimulating; others are fearful and resistant.

The curriculum supervisor also finds the large-scale curriculum movement a force for change in role. The professionalism of the new materials makes it impossible for the "curriculum generalist" to pose as an expert in the curriculum of any disciplined field. He has his choice of two ways tc go: he can identify with curriculum administration, oiling the machinery for the selection and installation of curricula; or he can become a curriculum philosopher, attempting to build theoretic structures of what the whole curriculum might be like, or what approaches to the curriculum problem are adequate. The curriculum subject specialist must achieve a scholar's grasp of an academic field which will equip him to "translate" that field into instructional strategies and courses.

Teacher educators' roles are undergoing change. Methods and materials courses are increasingly relating the more specific demands created by the project curricula. The

[2] This change of roles is discussed at greater length in: Arthur R. King, Jr., and John A. Brownell. *The Curriculum and the Disciplines of Knowledge: A Theory of Curriculum Practice*. New York: John Wiley & Sons, Inc., 1966.

teacher of teachers finds it necessary to hustle to keep abreast of happenings in the school.

Ironically, while much of the impact of the recent developments in curricula has been to promote depth of specialization for all concerned, interchangeability of roles is also increasingly possible. The insights and skills required of leadership teachers, curriculum supervisors, teacher educators, and educational materials designers and evaluators are overlapping to the extent that a total professional career may well include playing all of these other roles.

Several noted critics have deplored the lack of an overall curriculum pattern into which new components might fit. The situation, they say, is chaotic, unstructured, unbalanced, and unpredictable. But I venture a contrary view. I see the large number of curriculum development centers as a force for creativity.

What could be more sterile than to have some supergroup impose by fiat a scheme into which subsequent efforts must fit in order to secure funding and access to the schools? I can imagine a very healthy "open set" concept of the "whole" curriculum, with opportunity always open for the newer way, the more credible approach, and the fresher idea to break into the standard pattern. If I must choose, I prefer chaos with creativity over order with ossification.

In the organization with which I am now identified, two classroom teachers and one curriculum specialist, not too many years away from the classroom, are in operational control of four projects commanding five million dollars over a period of five years. The opportunity for individuals to create for their fellow professionals is enhanced beyond the wildest dreams of teachers and curriculum specialists of just a few years ago.

Clearly, an exciting new day is here for the education profession. We can seize the opportunity boldly, ready ourselves for our task, and make use of the potent new technique of the large-scale curriculum project to enliven our entire educational enterprise. If we are not ready, the educational industries are. □