EVERY model for curriculum development includes the concept of assessment or evaluation. From the theoretical point of view, evaluation plays an important part in improving program in several ways. Purposes can be selected, for example, on the basis of good data about the nature of society or the nature of the learner. Or, content, experiences, organization, and methodology can be set forth in testable form.

For instance, rather than assuming that any particular selection of content or sequence of experiences or methodological approaches or organizational stratagems is effective, responsible leaders in curriculum development can hypothesize about these things, then put their hypotheses to empirical test. Over a period of time such evaluative and assessment techniques should enable curriculum workers to make steady progress in terms of improving program.

Two major developments have forced the concepts of assessment and evaluation into special prominence. Talk of national assessment in education, on the one hand, and the requirement for evaluation built into the Elementary and Secondary Education Act program, on the other, are forcing curriculum workers to reexamine these notions as they apply to curriculum development today.

Any view of the educational scene suggests that programs are changing dramatically. At no time in the history of American schools have curricular changes been so widespread or so intensive as in the past decade. Modifications of course content, organizational structures, methodological approaches, evaluation procedures, and even purposes themselves have been instituted. Unless one is willing to accept change for its own sake, however, he is forced to ask: "Are the curriculum changes really significant?" Or to ask in another way, "Do children learn better in the new programs than they did in the old?"

This, of course, may be the wrong question. Some persons maintain that since the old purposes were not themselves appropriate, it is unreasonable to compare the new efforts today in terms of objectives which are actually obsolete. On the other hand, it may very well be that some kind of accumulated curriculum wisdom has been
reflected in the decades of activity which have gone into what we generally describe as "conventional program." If this is true, comparisons of new efforts with previously existing programs may be perfectly legitimate.

**New Questions Needed**

The fact is, these questions are academic. Even though changes in curriculum have been extensive, and many of these changes have been positive, few people are satisfied with the state of affairs in American curriculum today. The inadequacies are so obvious that thoughtful curriculum workers are continuously struggling to find new and more powerful ways to improve the program.

This dissatisfaction arises in part because of a kind of gnawing professional perspective which says: "No program is perfect. We must improve." Part of the dissatisfaction, however, stems from the very real fact that inappropriate and ineffective curricula can be found in almost any district or any building without difficulty at all. Too many children hate the very thought of having to learn in school. Too many find school a boring, unexciting place to be. Too many are unsuccessful in acquiring those ways of behaving which seem desirable to those in charge.

Why is this so? Many factors probably account for such a state of affairs today. I would like to suggest two. In my opinion, we have tended to ask the wrong questions in curriculum, and secondly, assessment has been ineffectively utilized as part of the total educational scheme.

If we ask the wrong questions we always get the wrong answers. In curriculum development we often ask the frequency question or the efficiency question, for example, rather than the effectiveness question. We say, "How many schools are using language laboratories?" or "How many schools have PSSC physics this year?" "How many classrooms are nongraded?" 

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many teachers utilize generative grammar or structural linguistics in their language arts programs?"

The assumption underlying these questions is that if more schools are using a particular program, it must be better. Obviously that is the wrong assumption. Frequency is not an appropriate criterion at all.

This fall, for instance, more than half of the youngsters who study physics in our secondary schools will be studying the PSSC physics program, but the proportional enrollment of high school students taking physics has steadily decreased during the same period of time that the new program has come into being. If we assume that the number of programs in use is important, we pose for ourselves the absurd possibility that the time might come when all of the schools would teach a particular course and none of the children would take it, that we would then be doing a perfect job.

Consider another example. Curriculum workers frequently make judgments about programs in terms of money. "How much will it cost?" "How efficient will it be?" "Can we afford such an innovation?" These questions presuppose that the basic purpose of education is to save money. No one is willing to agree with that aloud, of course, but the fact remains that if we ask an economic question, we can only get an economic answer. But that is the wrong question.

If schools exist to save money, there are many ways in which expenditures can be reduced. We can lower teachers' salaries, we can increase class size, or we can eliminate expenditures for instructional materials, for instance. These will all save money. The purpose of education is not to save money, though. It is to help children learn.

Curriculum workers must always focus upon the effectiveness question. Does the new program, do the new materials, will the new techniques enable students to learn more, better, faster, than some other approach? Does it make a significant difference in the lives and minds of those we teach? If it does, the program is effective. If it does not, the program is ineffective. Whether it costs more money or less or whether it is widespread or is not evident in any other school at all is immaterial. Frequency questions or economic questions simply get in the way. We must learn to ask the effectiveness question every time.

**A Conceptual Flaw**

A deeper, more elusive problem affecting program development, however, stems from the fact that education is a social system with a conceptual flaw. Every social system represents a human undertaking designed to fulfill human needs. Government, science, industry, education—these are all illustrations of different kinds of social systems in evidence today. Looked at in terms of systems theory, every effective social system reflects three phases of operation which accomplish separate functions, and these functions enable the system to maintain itself in an ongoing, dynamic, improving way.

Phase one includes the intellectual activities, the planning, policy making, hypothesizing function. Phase two involves the doing, accomplishing, effecting function. Phase three is the evaluating, assessing, reflecting, judgmental
function. Taken together they represent various aspects of social undertakings which are designed to allow the system to accomplish the objectives toward which it is aimed, and at the same time keep changing for the better.

These three phases of any social system are most clearly illustrated in our concept of government. The planning phase is represented by the legislative branch. The doing phase is represented by the executive branch. The evaluating or assessing phase is represented by the judicial branch. In industry, however, the model still holds. Somebody plans, somebody produces, and somebody judges the effectiveness of those activities in a realistic way.

Any careful study of social systems other than education suggests that these three functions have been made relatively discrete and that they are accomplished by different groups, each one of which has power. That is, the Congress is different than the President, and the Supreme Court is different still. The same notion holds at the state and local level, too. From the functional standpoint, our system of government has been conceptualized in such a way that these different functions are accomplished by separate groups.

Another point, however, rests on the fact that social systems in an open society actually depend upon the third phase of the operation to assure improvement and intelligent change. That is, when the courts decide that a particular law is constitutional or unconstitutional or that a particular action by the President either is or is not appropriate, they feed back into the system new data which guarantee that the enterprise will be able to change itself and to improve. In industry the same thing is also true.

Planning and producing a new product or service represent the first and second phases of that social system in operation. Once the product goes on sale, however, evaluation must occur. Judgments are made by those who buy. If the general public buys the product or service, what they really do is feed back into the system new data which tell those responsible for planning and production that they have done the job well. Or, if the product or service becomes available and the public refuses to buy, this too, constitutes corrective feedback. It tells those responsible that something about their operation is not satisfactory and it must be changed. In either event, evaluation plays the critical role of providing corrective feedback to the other parts of the system so that the entire operation can be improved.

Role of Feedback

Two things are important about our discussion thus far. One is that the concept of corrective feedback, which is performed during the evaluation phase of the social systems operation, represents the precise point at which improvement can be assured. Second, in these illustrations it is also evident that the assessment or evaluation effort is best accomplished by a separate group which has appropriate influence of its own. Congress is not allowed to pass judgment on the constitutionality of its own laws, for example, nor are manufacturing companies permitted to have the ultimate say in the worthwhileness or value of the products they produce. These decisions are reserved for other groups.
In other words, feedback is imperative if the system is to operate at the highest possible level of effectiveness; yet, at the same time, it is probably not possible to assume that those who plan or those who implement can also accomplish the evaluation role. The power of evaluation rests in part upon the nature of the feedback information which is generated by the process, but in part upon the fact that the evaluation group has an authority of its own. Said still another way, our system of government and our system of economics, at least, presume that when the evaluation group makes its decision known, the rest of the system will have to pay attention to the feedback. The rest of the system is not free to ignore the data, whether they are positive or negative in form.

Looked at in terms of such a social systems model, education obviously has a conceptual flaw. School boards accomplish the policy making role. Professional persons undertake the effecting, implementing, doing role. But there is no special group whose responsibilities encompass the assessment function in any meaningful way. The general public passes judgment on the effectiveness of schools, of course, but seldom do they have a way of communicating their concerns with precision to assure improvement in schools. They may vote down a bond issue, for instance, but often as not no one really knows what the negative vote means.

On the other hand, advisory councils or curriculum councils often attempt to perform the evaluation role. In the first instance the fact that their activities are advisory—no one has to pay attention to the feedback—illustrates the fact that the system is not assured of information in such a way that it has to improve. Likewise, curriculum councils may very well study a particular problem in program carefully and creatively, only to find that their recommendations go completely ignored. That such recommendations may be accepted and used only serves to reinforce the fact that they may also be ignored. There is no rigor in the system which insists that we utilize the best that we know.

Theoretically, education has this conceptual flaw. There is no aspect of the system which regularly generates evaluative data, nor is there anything in the concept which requires that the system pay attention to the feedback if it should appear.

Do we need curriculum evaluation? Is assessment important? On these questions everyone agrees. Of course! Where should evaluation occur? Who should accomplish the assessment role? How should these persons be selected? How can we assure ourselves that the system will be able to use and profit by the feedback data which are obtained? These are difficult problems.

Several alternatives seem to be available, but what is needed most now is a thoughtful consideration of analyses such as the one presented here, then extensive discussion of both the problems and possibilities which are involved. We may be on the verge of a genuine breakthrough in education, if we can muster the creative genius to explore the implications inherent in a consideration of the real power of assessing carefully everything we do.