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Basic Principles of Curriculum and Instruction

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Introduction

This small book¹ attempts to explain a rationale for viewing, analyzing and interpreting the curriculum and instructional program of an educational institution. It is not a textbook, for it does not provide comprehensive guidance and readings for a course. It is not a manual for curriculum construction since it does not describe and outline in detail the steps to be taken by a given school or college that seeks to build a curriculum. This book outlines one way of viewing an instructional program as a functioning instrument of education. The student is encouraged to examine other rationales and to develop his own conception of the elements and relationships involved in an effective curriculum.

The rationale developed here begins with identifying four fundamental questions which must be answered in developing any curriculum and plan of instruction. These are:

1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can we determine whether these purposes are being attained?

This book suggests methods for studying these questions. No attempt is made to answer these questions since the answers will vary to some extent from one level of education to another and from one school to another. Instead of answering the questions, an explanation is given of procedures by which these questions can be answered. This constitutes a rationale by which to examine problems of curriculum and instruction.

1. What Educational Purposes should the School Seek to Attain?

Many educational programs do not have clearly defined purposes. In some cases one may ask a teacher of science, of English, of social studies, or of some other subject what objectives are being aimed at and get no satisfactory reply. The teacher may say in effect that he aims to develop a well-educated person and that he is teaching

English or social studies or some other subject because it is essential to a well-rounded education. No doubt some excellent educational work is being done by artistic teachers who do not have a clear conception of goals but do have an intuitive sense of what is good teaching, what materials are significant, what topics are worth dealing with and how to present material and develop topics effectively with students. Nevertheless, if an educational program is to be planned and if efforts for continued improvement are to be made, it is very necessary to have some conception of the goals that are being aimed at. These educational objectives become the criteria by which materials are selected, content is outlined, instructional procedures are developed and tests and examinations are prepared. All aspects of the educational program are really means to accomplish basic educational purposes. Hence, if we are to study an educational program systematically and intelligently we must first be sure as to the educational objectives aimed at.

But how are objectives obtained? Since they are consciously willed goals, that is, ends that are desired by the school staff, are they not simply matters of personal preference of individuals or groups? Is there any place for a systematic attack upon the problem of what objectives to seek?

It is certainly true that in the final analysis objectives are matters of choice, and they must therefore be the considered value judgments of those responsible for the school. A comprehensive philosophy of education is necessary to guide in making these judgments. And, in addition, certain kinds of information and knowledge provide a more intelligent basis for applying the philosophy in making decisions about objectives. If these facts are available to those making decisions, the probability is increased that judgments about objectives will be wise and that the school goals will have greater significance and greater validity. For this reason, a large part of the so-called scientific study of the curriculum during the past thirty years has concerned itself with investigations that might provide a more adequate basis for selecting objectives wisely. The technical literature of the curriculum field includes hundreds of studies that collected information useful to curriculum groups in selecting objectives.

Accepting the principle that investigations can be made which will provide information and knowledge useful in deciding about objectives, the question is then raised what sources can be used for getting information that will be helpful in this way. A good deal of controversy goes on between essentialists and progressives, between subject specialists and child psychologists, between this group and that school group over the question of the basic source from which objectives can be derived. The progressive emphasizes the importance of studying the child to find out what kinds of interests he has, what problems he encounters, what purposes he has in mind. The progressive sees this information as providing the basic source for selecting objectives. The essentialist, on the other hand, is impressed by the large body of knowledge collected over many thousands of years, the so-called cultural heritage, and emphasizes this as the primary source for deriving objectives. The essentialist views objectives as essentially the basic learnings selected from the vast cultural heritage of the past.

Many sociologists and others concerned with the pressing problems of contemporary society see in an analysis of contemporary society the basic information from which objectives can be derived. They view the school as the agency for helping young people to deal effectively with the critical problems of contemporary life. If they can determine what these contemporary problems are then the objectives of the school are to provide those knowledges, skills, attitudes, and the like that will help people to

deal intelligently with these contemporary problems. On the other hand, the educational philosophers recognize that there are basic values in life, largely transmitted from one generation to another by means of education. They see the school as aiming essentially at the transmission of the basic values derived by comprehensive philosophic study and hence see in educational philosophy the basic source from which objectives can be derived.

The point of view taken in this course is that no single source of information is adequate to provide a basis for wise and comprehensive decisions about the objectives of the school. Each of these sources has certain values to commend it. Each source should be given some consideration in planning any comprehensive curriculum program. Hence, we shall turn to each of the sources in turn to consider briefly what kinds of information can be obtained from the source and how this information may suggest significant educational objectives.

Studies of the Learners Themselves as a Source of Educational Objectives

Education is a process of changing the behavior patterns of people. This is using behavior in the broad sense to include thinking and feeling as well as overt action. When education is viewed in this way, it is clear that educational objectives, then, represent the kinds of changes in behavior that an educational institution seeks to bring about in its students. A study of the learners themselves would seek to identify needed changes in behavior patterns of the students which the educational institution should seek to produce.

An investigation of children in the elementary school in a certain community may reveal dietary deficiency and inadequate physical condition. These facts may suggest objectives in health education and in social studies but they suggest objectives only when viewed in terms of some conception of normal or desirable physical condition. In a society which takes dietary deficiencies for granted, there would be little likelihood of inferring any educational objectives from such data. Correspondingly, studies of adolescence during the depression indicated that a considerable number were greatly perturbed over the possibility that they would be unable to find work upon graduation. This does not automatically suggest the need for vocational guidance or occupational preparation. Studies of the learner suggest educational objectives only when the information about the learner is compared with some desirable standards, some conception of acceptable norms, so that the difference between the present condition of the learner and the acceptable norm can be identified. This difference or gap is what is generally referred to as a need.

There is another sense in which the term "need" is used in the psychological writings of Prescott, Murray, and others. They view a human being as a dynamic organism, an energy system normally in equilibrium between internal forces produced by the energy of the oxidation of food and external conditions. To keep the system in equilibrium it is necessary that certain "needs" be met. That is, certain tensions are produced which result in disequilibrium unless these tensions are relieved. In this sense every organism is continually meeting its needs, that is, reacting in such a way as to relieve these forces that bring about imbalance. In these terms one of the problems of education is to channel the means by which these needs are met so that the resulting behavior is socially acceptable, yet at the same time the needs are met and the organism is not

under continuous, unrelieved tensions. Prescott classifies these needs into three types: physical needs such as the need for food, for water, for activity, for sex and the like; social needs such as the need for affection, for belonging, for status or respect from this social group; and integrative needs, the need to relate one's self to something larger and beyond one's self, that is, the need for a philosophy of life. In this sense all children have the same needs and it is the responsibility of the school as with every other social institution to help children to get these needs met in a way which is not only satisfying but provides the kind of behavior patterns that are personally and socially significant. A study of such needs in a given group of children would involve identifying those needs that are not being properly satisfied and an investigation of the role the school can play in helping children to meet these needs. This may often suggest educational objectives in the sense of indicating certain knowledge, attitudes, skills, and the like, the development of which would help children to meet these needs more effectively. These studies may also suggest ways in which the school can help to give motivation and meaning to its activities by providing means for children to meet psychological needs that are not well satisfied outside the school.

Studies of Contemporary Life Outside the School

The effort to derive objectives from studies of contemporary life largely grew out of the difficulty of accomplishing all that was laid upon the schools with the greatly increased body of knowledge which developed after the advent of science and the Industrial Revolution. Prior to this time the body of material that was considered academically respectable was sufficiently small so that there was little problem in selecting the elements of most importance from the cultural heritage. With the tremendous increase in knowledge accelerating with each generation after the advent of science, the schools found it no longer possible to include in their program all that was accepted by scholars. Increasingly the question was raised as to the contemporary significance of particular items of knowledge or particular skills and abilities. Herbert Spencer in his essay on *What Knowledge Is of Most Worth?* attempted to deal with this problem in a way that has characterized many of the efforts over the past century. Although this represented the interpretation of informal observations rather than systematic studies, the technique used by Spencer in some respects is very similar to techniques used by investigators today.

When the First World War required the training of a large number of people in the skilled trades, training that must take place in a relatively short period of time, the older and slower apprentice systems were no longer adequate. The idea of job analysis developed and was widely used to work out training programs in World War I which would speed up the training of people for the skilled trades and various types of technology. In essence, job analysis is simply a method of analyzing the activities carried on by a worker in a particular field in order that a training program can be focused upon those critical activities performed by this worker. In essence, most studies of contemporary life have a somewhat similar "logic."

Today there are two commonly used arguments for analyzing contemporary life in order to get suggestions for educational objectives. The first of these arguments is that because contemporary life is so complex and because life is continually changing, it is very necessary to focus educational efforts upon the critical aspects of this complex

life and upon those aspects that are of importance today so that we do not waste the time of students in learning things that were important fifty years ago but no longer have significance at the same time that we are neglecting areas of life that are now important and for which the schools provide no preparation.

A second argument for the study of contemporary life grows out of the findings relating to transfer of training. As long as educators believed that it was possible for a student to train his mind and the various faculties of the mind in general and that he could use these faculties under whatever conditions might be appropriate, there was less need for analyzing contemporary life to suggest objectives. According to this view the important objectives were to develop the several faculties of the mind and as life developed the student would be able to use this trained mind to meet the conditions that he encountered. Studies of transfer of training, however, indicated that the student was much more likely to apply his learning when he recognized the similarity between the situations encountered in life and the situations in which the learning took place. Furthermore, the student was more likely to perceive the similarity between the life situations and the learning situations when two conditions were met: (1) the life situations and the learning situations were obviously alike in many respects, and (2) the student was given practice in seeking illustrations in his life outside of school for the application of things learned in school. These findings are used to support the value of analyzing contemporary life to identify learning objectives for the school that can easily be related to the conditions and opportunities of contemporary life for use of these kinds of learning.

Using studies of contemporary life as a basis for deriving objectives has sometimes been criticized particularly when it is the sole basis for deriving objectives. One of the most frequent criticisms has been that the identification of contemporary activities does not in itself indicate their desirability. The finding, for example, that large numbers of people are engaged in certain activities does not per se indicate that these activities should be taught to students in the school. Some of these activities may be harmful and in place of being taught in the school some attention might need to be given to their elimination. The second type of criticism is the type made by essentialists who refer to studies of contemporary life as the cult of "presentism." These critics point out that because life is continually changing, preparing students to solve the problems of today will make them unable to deal with the problems they will encounter as adults because the problems will have changed. A third kind of criticism is that made by some progressives who point out that some of the critical problems of contemporary life and some of the common activities engaged in by adults are not in themselves interesting to children nor of concern to children, and to assume that they should become educational objectives for children of a given age neglects the importance of considering the children's interests and children's needs as a basis for deriving objectives.

These criticisms in the main apply to the derivation of objectives solely from studies of contemporary life. When objectives derived from studies of contemporary life are checked against other sources and in terms of an acceptable educational philosophy, the first criticism is removed. When studies of contemporary life are used as a basis for indicating important areas that appear to have continuing importance, and when the studies of contemporary life suggest areas in which students can have opportunity to practice what they learn in school, and also when an effort is made to develop in students an intelligent understanding of the basic principles involved in

these matters, the claim that such a procedure involves a worship of "presentism" is largely eliminated. Finally, if studies of contemporary life are used to indicate directions in which educational objectives may aim, while the choice of particular objectives for given children takes into account student interests and needs, these studies of contemporary life can be useful without violating relevant criteria of appropriateness for students of particular age levels. Hence, it is worthwhile to utilize data obtained from studies of contemporary life as one source for suggesting possible educational objectives.

Suggestions About Objectives from Subject Specialists

This is the source of objectives most commonly used in typical schools and colleges. School and college textbooks are usually written by subject specialists and largely reflect their views. Courses of study prepared by school and college groups are usually worked out by subject specialists and represent their conception of objectives that the school should attempt to attain. The reports of the Committee of Ten that appeared at the turn of the century had a most profound effect upon American secondary education for at least twenty-five years. Its reports were prepared by subject specialists and the objectives suggested by them were largely aimed at by thousands of secondary schools.

Many people have criticized the use of subject specialists on the grounds that the objectives they propose are too technical, too specialized, or in other ways are inappropriate for a large number of the school students. Probably the inadequacy of many previous lists of objectives suggested by subject specialists grows out of the fact that these specialists have not been asked the right questions. It seems quite clear that the Committee of Ten thought it was answering the question: What should be the elementary instruction for students who are later to carry on much more advanced work in the field? Hence, the report in History, for example, seems to present objectives for the beginning courses for persons who are training to be historians. Similarly the report in Mathematics outlines objectives for the beginning courses in the training of a mathematician. Apparently each committee viewed its job as outlining the elementary courses with the idea that these students taking these courses would go on for more and more advanced work, culminating in major specialization at the college or university level. This is obviously not the question that subject specialists should generally be asked regarding the secondary school curriculum. The question which they should be asked runs somewhat like this: What can your subject contribute to the education of young people who are not going to be specialists in your field; what can your subject contribute to the layman, the garden variety of citizen? If subject specialists can present answers to this question, they can make an important contribution, because, presumably, they have a considerable knowledge of the specialized field and many of them have had opportunity both to see what this subject has done for them and for those with whom they work. They ought to be able to suggest possible contributions, knowing the field as well as they do, that it might make to others in terms of its discipline, its content, and the like.

Some of the more recent curriculum reports do indicate that subject specialists can make helpful suggestions in answers to this question. The various reports published by the Commission on the Secondary School Curriculum of the Progressive Education

Association beginning with "Science in General Education," including "Mathematics in General Education," "Social Studies in General Education," and other titles have been very useful and have thrown some light on the question, "What can this subject contribute to the education of young people who are not to specialize in it?" Other groups have recently prepared somewhat similar reports which also seem promising. Committee reports from the National Council of Mathematics Teachers, the National Council of English Teachers, the National Council of Social Studies Teachers, are cases in point. In general, they recognize much more clearly than did the committee preparing reports for the Committee of Ten that the subject is expected to make contributions to a range of students not considered in the earlier reports. In general, the more recent reports will be found useful as an additional source for suggestions about objectives.

Most of the reports of subject groups do not stop with objectives and many of them do not list objectives specifically. Most of them begin with some outline indicating their conception of the subject field itself and then move on to indicate ways in which it can be used for purposes of general education. Persons working on the curriculum will find it necessary to read the reports in some detail and at many places draw inferences from the statements regarding objectives implied. In general, two kinds of suggestions can be got from the reports as far as objectives are concerned. The first is a list of suggestions regarding the broad functions a particular subject can serve, the second is with regard to particular contributions the subject can make to other large functions which are not primarily functions of the subject concerned.

Let me illustrate these two types of suggestions that can be got from these reports. Recent reports of English groups, for example, have suggested educational functions of English as a study of language. The first function is to develop effective communication including both the communication of meaning and the communication of form. The second type of contribution is to effective expression, including in expression the effort of the individual to make internal adjustments to various types of internal and external pressures. A third function of language is to aid in the clarification of thought as is provided, for example, by the use of basic English as a means of aiding students to see whether they understand ideas clearly enough to translate them into operational words. This last function of clarification of thought is well illustrated by the statement of George Herbert Palmer that when confused he used to write himself clearheaded.

In the realm of literature these English committees see various kinds of contributions in terms of major functions literature can serve. Some emphasize its value in personal exploration. Literature in this sense can provide an opportunity for the individual to explore kinds of life and living far beyond his power immediately to participate in, and also give him a chance to explore vicariously kinds of situations which are too dangerous, too fraught with consequences for him to explore fully in reality. A number of committee reports speak of the general function of literature in providing greater extension to the experience of young people, not limited by geographic opportunities, nor limited in time nor limited in social class or types of occupations or social groups with which they can participate. In this case literature becomes the means of widely extending the horizon of the reader through vicarious experience. Another function of literature is to develop reading interests and habits that are satisfying and significant to the reader. Some English committees stress as an important objective to develop increasing skill in interpreting literary material, not only skill in analyzing the

logical development and exposition of ideas but also the whole range of things including human motives which are formulated in written language and can therefore be subject to study and critical interpretation. Finally, some English committees propose that literature serves the function of appreciation, including both an opportunity for significant emotional reactions to literary forms and also opportunities for critical appraisal both of form and content, and a means thereby of developing standards of taste in literature.

These suggestions with regard to possible major functions of language and literature provide large headings under which to consider possible objectives which the school can aim at through language and literature. Such an analysis indicates the pervasive nature of the contribution that language and literature might possibly make to the development of children, adolescents, or adults. They suggest objectives that are more than knowledge, skills, and habits; they involve modes of thinking, or critical interpretation, emotional reactions, interests and the like.

Another illustration of the suggestions of major functions a subject may serve can be obtained from recent reports of science committees. One such report suggests three major functions science can serve for the garden variety of citizen. The first of these is to contribute to the improvement of health, both the individual's health and public health. This includes the development of health practices, of health attitudes, and of health knowledge, including an understanding of the way in which disease is spread and the precautions that can be taken by the community to protect itself from disease and from other aspects of poor health. The second suggested function of science is the use and conservation of natural resources; that is, science can contribute to an understanding of the resources of matter and energy that are available, the ways in which matter and energy can be obtained and utilized so as not greatly to deplete the total reserves, an understanding of the efficiency of various forms of energy transformation, and an understanding of plant and animal resources and the ways in which they can be effectively utilized. The third function of science is to provide a satisfying world-picture, to get clearer understanding of the world as it is viewed by the scientist and man's relation to it, and the place of the world in the larger universe. From these suggested functions of science, again it is possible to infer a good many important objectives in the science field, objectives relating to science, knowledge, attitudes, ability to solve problems, interests and the like.

Recent art reports illustrate another example of suggestions regarding major functions a subject might serve in general education. Some five functions have been proposed in these reports. The first, and in terms of Monroe's writing the most important, is the function of art in extending the range of perception of the student. Through art one is able to see things more clearly, to see them through the eyes of the artist, and thus to get a type of perception he is not likely to obtain in any other way. Both art production and art criticism are likely to extend perception. A second function proposed for art is the clarification of ideas and feelings through providing another medium for communication in addition to verbal media. There are students who find it possible to express themselves and communicate more effectively through art forms than through writing or speaking. For them this is an important educational function of art. A third function is personal integration. This refers to the contribution art has sometimes made to the relieving of tensions through symbolic expression. The making of objects in the studio and shop and expression through dancing and through music have long been known to produce an opportunity for personal expression and personal release

from tension that is important in providing for the better integration of some young people. A fourth function is the development of interests and values. It is maintained that aesthetic values are important both as interesting qualities for the student and also as expressing very significant life values in the same category with the highest ultimate values of life. On this basis the contribution art can make in providing satisfaction of these interests and in developing an understanding of and desire to obtain these art values is an important educational function of art. Finally, a fifth function of art is the development of technical competence, a means of acquiring skill in painting or drawing or music, or some other art form which can have meaning and significance to the art student. These art reports are another illustration of material from which a number of significant suggestions regarding educational objectives can be inferred from a statement of functions.

A second type of suggestion that can be got from reports of subject specialists are the particular contributions that a subject can make to other large educational functions, that may not be thought of as unique functions of the subject itself. *The Report of the Committee on Science in General Education* is an excellent illustration of this type of suggestion. This report is organized in terms of suggested contributions science can make in each of the major areas of human relationships. In personal living, for example, suggestions are made as to ways in which science can help to contribute to personal health, to the need for self assurance, to a satisfying world picture, to a wide range of personal interests, and to aesthetic satisfaction. In the area of personal-social relations, suggestions are made as to ways in which science may help to meet student needs for increasingly mature relationships in home and family life and with adults outside the family, and for successful and increasingly mature relationships with age mates of both sexes. In the area of social-civic relations suggestions are made as to how science may help to meet needs for responsible participation in socially significant activities, and to acquire social recognition. In the area of economic relations suggestions are made as to how science may help to meet needs for emotional assurance of progress toward adult status, to meet the need for guidance in choosing an occupation and for vocational preparation, to meet the need for the wise selection and use of goods and services, and to meet the needs for effective action in solving basic economic problems.

The volume *Science in General Education* then goes on to outline the ways in which science can be taught to encourage reflective thinking and to develop other characteristics of personality such as creative thinking, aesthetic appreciation, tolerance, social sensitivity, self-direction. Critics have questioned the depths of contributions that science might make on a number of these points, but it is clear that these suggestions are useful in indicating possible objectives that a school might wish to aim at, using science or other fields as a means for attaining these objectives. Other subject groups have, in similar fashion, made suggestions regarding specific contributions these subjects might make to areas that are not uniquely the responsibility of these subjects. It is then through the drawing of inferences from reports of this sort regarding both the major functions that specialists think the subject can make and also the more specific contributions that the subject might make to other major functions that one is able to infer objectives from the reports of subject specialists.

I would suggest in order to get some taste of the kind of thing that can be obtained from these reports that you read at least one subject report at the level in which you are interested and jot down your interpretation of the major functions the committee

believes that this subject can serve and the more specific contributions it can make to other educational functions. Then, formulate a list of the educational objectives you infer from these statements. This will give you some idea of the kinds of objectives that are likely to be suggested by the reports that are being made by various subject groups.

Note

1. From Ralph W. Tyler, *Basic Principles of Curriculum and Instruction*. Chicago: University Chicago Press, 1949: pp. 1-7, 16-19, 25-33.