

Chapter 4

CURRICULUM THEORY

In Chapter 1, we established curriculum as a sub-system of education along with such others as instruction, evaluation, and administration. As a sub-system of education, curriculum must have unique properties and functions that distinguish it from the other sub-systems. A curriculum theory, therefore, must explain in various ways the character of and the relationships among the unique properties and functions of the curriculum sub-system. The function of this chapter is to orient basic theory-building processes to the field of curriculum and then to point out some historic exemplars of theoretical postures taken on curriculum.

THEORY PROCESSES IN CURRICULUM

From our conclusions in Chapters 2 and 3, we should impose upon the would-be curriculum theorist two kinds of guide or principle. One has to do with definition and theory content, the other with the types of activity permissible or mandatory.

Definitions and Theory Content

Initially, we stated that a theory is a set of statements. It must be in the form of a physical record that may be used as a means of communication among people and as a directive force in furthering theoretical and practical work efforts. Individual statements within a theory must be related in such a way as to produce greater meaning to the individual parts and to foster interrelation among the parts, thereby extending meaning to the whole set of events giving rise to the theory. This demand for

relatedness is present in all serious writing about theory. Most series of events in curriculum are so variable that explanations for them may need to assume the form of definitions and various kinds of propositions. For a theory to explain these variant events systematically, the theory builder needs to relate them.

Theory may be defined as a set of related statements that are arranged so as to give functional meaning to a series of events. The set of related statements may take the form of descriptive or functional definitions, operational constructs, assumptions, postulates, hypotheses, generalizations, laws, or theorems. The precise contents are dictated by the scope of the series of events, the amount of empirical knowledge available, and the degree of sophistication of theory and research surrounding the series of events.

Now let us apply these basic ideas about theoretical work to curriculum theory. The first task is to define curriculum theory. If a theory is a set of related statements that are arranged so as to give functional meaning to a set or a series of events, *a curriculum theory is a set of related statements that gives meaning to a school's curriculum by pointing up the relationships among its elements and by directing its development, its use, and its evaluation.* The subject matter of curriculum theory may be the events associated with decisions about a curriculum, the use of a curriculum, the development of a curriculum, curriculum design, curriculum evaluation, and so forth.

Such events are only part of the task of identifying curriculum theory ingredients. Within each of any identified series of events, there are technical terms that define the subject matter of the theoretical field. These have to be defined, or the boundaries of the theorist's work cannot be determined. Definitions also serve a functional purpose when they can be translated into operational constructs in research.

When a theorist identifies pertinent technical concepts, he is forced to open up all aspects of the field of curriculum that need to be explained by a full-blown curriculum theory. When the theorist turns to definition of concepts, it immediately becomes apparent to him that the key concept demanding clear definition is curriculum. Three key ways of using the word *curriculum* emerge from the literature. One use of the word *curriculum* is as a substantive

phenomenon. In the frame of this usage, one talks about a curriculum. In most cases a curriculum is a plan of some kind. It may be a plan consisting of proposed learning opportunities for school pupils. A curriculum may be thought of as a set of intended outcomes. For others, a curriculum may be an elaborate document including objectives, activities, instructional materials, and time schedules. Some conceive a curriculum as a written document; others view it as a set of verbal agreements. One authority may propose that a curriculum be made for a school or a school district. Another may propose that one be made for a state's schools. A third may propose that a curriculum should be national in scope. Regardless of meanings associated, a theorist must talk about a curriculum.

A second use of the word curriculum is a synonym for a curriculum system. A curriculum system is that part of the organized framework of a school or a school system within which all curriculum decisions are made. A curriculum system consists of the personnel organization and the organized procedures needed to produce a curriculum, to implement it, to appraise it, and to modify it in light of experience. The principal output of a curriculum system is a curriculum; the function of the system is to keep the curriculum dynamic.

A third use of the word curriculum is a synonym for an area of professional study. This mode is to speak of curriculum as a total field of study. This is the usage employed by nearly all professional schools of education.

A very important and substantive part of the content of any theory is the accumulation of statements describing relationships among the ingredients of the theory. To these need to be added the structural relationships between the theory being developed and its sub-theories. If we employ the three uses of curriculum as a framework, relationships among the ingredients of curriculum theory may be more readily identified. Within the concept of a curriculum, there are many key relationships to be described. The primary ones have to do with such matters as the relationships between goals and culture content, between school organization and scope and sequence, or between culture content and overall design. Secondary, or peripheral, relationships have to do with influences that impinge on curriculum decisions but which are not

a part of a curriculum. Statements of these relationships need to explain why primary decisions are made. For example, goals are selected according to a conceived role of the school in society. Much of grade placement of subject matter depends upon predictions about the school population.

The concept of a *curriculum system* implies a governing cluster of relationships. Most of them have to do with the human engineering required in the process of curriculum development and curriculum usage. The fundamental tasks of a curriculum system set the framework for needed relationship ties. The tasks inherent in a curriculum system, briefly mentioned here and detailed in later chapters are: (1) the choice of arena for curriculum decision-making, (2) the selection and involvement of persons in curriculum planning, (3) organization for and techniques used in curriculum planning, (4) actual writing of a curriculum, (5) implementing the curriculum, (6) evaluating the curriculum, and (7) providing for feedback and modification of the curriculum. When statements of relationship among these elements are articulated, the phenomena of curriculum development, curriculum use, and curriculum evaluation will have been described. The primary concern here is one of explaining the structure and functions of a curriculum system.

The purpose of *curriculum as a field of study* is to advance knowledge about curriculums and curriculum systems. Whatever is included in the field of study must be defended on the basis of that purpose. It is conventional for students of curriculum to study social and psychological foundations of education. Advanced students study research design and procedures in depth. They study and analyze our past experiences in curriculum affairs. Establishing relationships among such studies and the basic ideas of curriculum design and engineering gives added theoretical strength to curriculum as a field of study.

To the foregoing relationship statements, others need to be added to fill out the picture of theory content in curriculum. These constitute the statements needed to show relationships between curriculum theory and the remaining sub-theories of educational theory. Figure 1 in Chapter 1 reveals some of these to be instructional theory, evaluation theory, administrative theory, and counseling theory. Relationship ties among some of these are

stronger than among others. Irrespective of strength, relationships need to be described in order to clarify the unique role of curriculum theory as a sub-theory of educational theory.

Curriculum Theory-Building Activities

The curriculum theorist is subject to the same rules of behavior as any theorist in the behavioral sciences; consequently, he is obligated to engage in the most commonly accepted work practices of all. They are: (1) establishment of descriptive and prescriptive definitions for technical terms, (2) classification of existing and new knowledge, (3) inferential and predictive research, (4) sub-theory development, and development and use of models.

We have labored sufficiently over the need for establishing and consistently using definitions of technical terms. Generally, educational writers and theorists have been unwilling or unable to define their technical terms with care and to use them consistently once having defined them. It is absolutely essential for the theorist to identify and define the key terms of his field. For instance, such concepts as curriculum, subject matter, design, implementation, and evaluation are a few that would have to be carefully structured. These concepts permeate curriculum considerations.

The act of classifying knowledge is another theory function. Although a classification system is not synonymous with a theory, the former is essential to the latter. Without order and relationship, meaning for a series of events is elusive or non-existent.

Although some classification of curriculum knowledge has taken place in subordinate aspects of curriculum, a systematic classification is still lacking. This condition is strange because classification is a theory-building activity that is very possible in the field of curriculum. Limited attempts have been made by those who have raised questions that curriculum theory should answer, such as those about what content, what organization, what teaching, for what pupils, for what purposes. Progress beyond that has been inhibited by the lack of acceptance of a conceptual framework for curriculum classification. Probably, the lack of advance in classification is primarily attributable to great variation in use of technical terms. The effect is to produce a reluctance to

postulate a classification scheme and expose it to the light of research and experience.

Inference and prediction are of the highest order in the work of the theorizer. It is possible for one to arrive at definitions, descriptions, and classification schemes initially by analytical procedures or by simple descriptive research, but it is not possible for one to go beyond those levels without the kinds of research that will allow one to infer or predict from the results. The kinds of research from which inference and prediction may be made are assigned various names in research literature. We will note here only the two most relevant research techniques. First, it should be stated that the act of inferring is a logical process. An inference is a proposition or generalization derived from evidence by reasoning. The research design does not provide the inference.

With one type of problem, a researcher is concerned with the examination of differences between, or among, samples taken from a known population. Measures for a criterion, or dependent, variable are taken from all samples, and various treatments are assigned to individual sample groups so as to manipulate independent variable effects. The researcher, in these cases, usually seeks causal relationships between the criterion variable and the independent variables. It is common for analysis of variance designs and techniques to be used in these cases to examine the relationships. The researcher reaches a conclusion from observation of the results of his data treatment. Providing he is satisfied with the validity and reliability of his conclusion, the researcher can infer that his conclusion is generalizable to all samples of the population. A simple illustration in curriculum research would be a study of the effects of various kinds of inservice training administered to randomly selected groups of teachers upon their ability to participate as curriculum planners. The results, assuming proper controls and treatments, would permit the researcher to infer that the same status would hold for other similarly chosen groups and their parent population.

In a sense, prediction is a special case of inference. For predictive relationships, research is designed so that one can estimate the unknown from the known. However, it is first necessary to establish the relationship between the known and the unknown characteristics or behaviors. A commonly-used research

technique for this kind of problem is correlation and regression analysis. A study is made of the correlation between two or more sets of behaviors or characteristics that are assumed to be related. The purpose of such a study is to establish the strength of the relationship so that thereafter one can predict one of the sets of behaviors or characteristics (the unknown) from the other (the known). The well-known correlation between measures of intelligence and measures of school achievement was observed, and we feel confident, within established limits, that we can predict school achievement once intelligence has been measured satisfactorily. In curriculum, many needs for research of this kind exist. A curriculum itself is an expression of prediction. Curriculum planners predict that teachers will use a curriculum as a point of departure for their teaching; otherwise there would be little point in doing all that work. Curriculum planners may predict that certain learning outcomes will occur. Rarely have these predictions been tested out in research, but they must be to develop generalizations about the phenomena for purposes of building curriculum theory.

A mature theory is undergirded by sub-theories. If they seek mature curriculum theories, curriculum theorists must work at identifying and building the sub-theories of curriculum. What the sub-theories are may be dependent upon the concepts and procedures the theorist wishes to associate with the field of curriculum. Possibilities for sub-theories to curriculum theory are curriculum design, procedures for curriculum planning and implementation, and curriculum evaluation. Accounting for these functions theoretically is the domain of sub-theory building in curriculum, and we will address ourselves to these areas in later chapters.

Model building is another activity for the curriculum theorist, and the theorist may use models in a variety of ways. Models may be used to illustrate a person's posture on the design of a curriculum. Models are useful in depicting procedures for curriculum planning and implementation. Curriculum evaluation schema may be represented by models. Models may be created to show relationships among curriculum design, the curriculum engineering processes, and evaluation processes. The latter would be a basic model of a curriculum theory. It makes little difference

whether models are "borrowed" as paradigms from other areas of knowledge or whether they are developed indigenously within the framework of curriculum constructs originally.

Progress in curriculum theory has been slow and meager, and too few curriculum specialists have responded to the need for thoughtful theoretical work. Like many other functions in education, the curriculum function has responded more to the external pressures from an expanding culture than to internal examination, systematic research, and explanation. In responding to the set of external forces, curriculum workers have been busy, and they have worked diligently, and at all times, creatively. We shall now turn to some of those efforts.

EXEMPLARS IN CURRICULUM THINKING

From the history of curriculum thought one can glean persistent ideas that may be said to have theoretical bases, and there is evidence that a body of concern by curriculum scholars is emerging toward a field of curriculum theory. To a very great extent, the bases for most of the postures represented here are rooted in the educational ethos of the period of our history in which they developed; yet, there has evolved a series of persistent problems that may be said to belong to curriculum.

The history of curriculum thought has been reviewed from time to time. Two examples will be cited here. Seguel reviewed the formative years of the curriculum field which she stipulated to be between 1890 and 1940.¹ Seguel chose to illustrate periodic developments in curriculum by describing the work of representative scholars. Charles and Frank McMurry were selected as representatives of the Herbartian movement. John Dewey was included because of his pervasive influence upon the curriculum thinking of all others. Franklin Bobbitt and Werrett W. Charters were chosen to represent the movement in curriculum known as activity analysis. Harold Rugg represented a group attempting to synthesize ideas about curriculum up to that point in time. And Hollis Caswell was selected to represent the new specialist in curriculum making. Phillips analyzed meanings

¹Mary Louise Seguel, *The Curriculum Field: Its Formative Years* (New York: Teachers College Press, Columbia University, 1966).

associated with the concept "curriculum" from its early use to the year 1962.² He divided his analysis into three chronological periods, namely, (1) the Pre-Progressive Period from 1890 to 1918, (2) the Progressive Period from 1918 to 1955, and (3) the Post-Progressive Period after 1955. Phillips then identified the curriculum postures of writers within those periods. For our purposes in this writing, we will divide our attention between the periods of 1918 to 1950 and from 1950 to the present. From the viewpoint of curriculum theory, this rough division seems appropriate since 1950 marked the publication of the proceedings of a major conference on curriculum theory.

Early Curriculum Specialists

Although persons developed concern for curriculum problems as early as 1890, as pointed out by Seguel and Phillips, the first definitive work on general curriculum was published by Bobbitt in 1918.³ Bobbitt really was the first of a long line of people who became curriculum specialists in the sense that they developed a curriculum posture and were leaders in the practical affairs of curriculum development. Bobbitt is identified as a proponent of activity analysis as a means of making curriculum decisions. He was among the first to use the methods of science to identify the activities and predispositions of adults for purposes of creating a school curriculum that would prepare children for that kind of adult life. Bobbitt's rationale is depicted in the following statement:

The central theory is simple. Human life, however varied, consists in the performance of specific activities. Education that prepares for life is one that prepares definitely and adequately for these specific activities. However numerous and diverse they may be for any social class, they can be discovered. This requires only that one go out into the world of affairs and discover the particulars of which these affairs consist. These will show the abilities, attitudes, habits, appreciations, and forms of knowledge that men need. These will be the objectives of the curriculum. They will be numerous, definite, and particularized. The curriculum will then be that series of experiences which children and youth must have by way of attaining those objectives.⁴

²Richard C. Phillips, "A Historical Study of the Concept Curriculum" (unpublished doctor's dissertation, Northwestern University, Evanston, Illinois, 1962).

³Franklin Bobbitt, *The Curriculum* (Boston: Houghton Mifflin Company, 1918).

⁴*Ibid.*, p. 42.

Charters was much in agreement with Bobbitt in proposing job analysis of adult occupations as a technique for formulating bases for curriculum decisions.⁵ In this respect, Charters was more concerned with vocational education. Both reached similar conclusions about curriculum content.

Two things stand out about the theoretical postures of Bobbitt and Charters. First, they were committed to the use of the techniques of science in the solution of curriculum problems. In this respect, they were influenced by the scientific movement in education led by persons such as E. L. Thorndike, Charles Judd, and their followers. Second, Bobbitt and Charters held, as a basis for their theories, the assumption that it was the function of the school to prepare the young for adult life. The way to find out about adult life was to analyze it, and the way to make a curriculum was to decide what skills, knowledge, values, and attitudes would prepare the school leavers to participate in that life. The whole approach was a vigorous way of determining curriculum content and objectives and for organizing the curriculum content in a systematic manner.

Under the leadership of the Progressives, the child-centered movement was causal in a shift in the whole character of curriculum thinking beginning early in the 1920's. Attention was shifted from the organization of subject matters aimed at preparation for adult life to the psychological behavior of the learner in the present. The important criteria for curriculum content became the interests and needs of children in school. Since the interests and needs of children emerged from their daily experience, a pre-planned curriculum without the involvement of the children in the planning became an anathema to the development of a good educational program.

The conflict between the society-centered and the child-centered groups was brought into sharp focus in the Twenty-sixth Yearbook of the National Society for the Study of Education.⁶ The society's committee was composed of persons of various persuasions, and Harold Rugg was chairman. In spite of differences in theoretical orientation, the committee was able to

⁵Werrett W. Charters, *Curriculum Construction* (New York: The Macmillan Company, 1929).

⁶Harold Rugg, Chairman, *The Foundations and Technique of Curriculum Construction*, Twenty-sixth Yearbook of the National Society for the Study of Education, Part I and II (Bloomington, Ill.: Public School Publishing Company, 1927).

formulate a statement of working principles for curriculum making. That statement of principles came as close to being a statement of curriculum theory as anything set forth up to that time. It is interesting to note that committee members each prepared a supplementary statement to the general statement of principles in order to preserve the integrity of their own orientations. In those statements, one can find the theoretical postures of the conflicting viewpoints highlighted. It is a curious thing that efforts of this kind have not been repeated with regularity so that the likenesses and differences of curriculum positions would be kept as clear as they were illuminated by those theorists in 1927.

Following Seguel's⁷ idea, we will use Hollis Caswell as a representative of a different breed of curriculum specialist from the groups previously discussed. Caswell set virtually a performance model for leadership in curriculum development during his association with the Division of Surveys and Field Studies at Peabody College for Teachers in Nashville, Tennessee. During this period of his life, Caswell was involved as a consultant to curriculum development projects in Alabama, Florida, Virginia, and others.⁷ We can see in the work of Caswell and his associates increased emphasis upon teacher involvement in curriculum decisions, organizational structures for planning groups, and such steps in procedure as defining the meaning of curriculum, determining objectives, selecting content, determining curriculum design, and measuring outcomes.

Thus, we see most of the basic theoretical curriculum issues highlighted by curriculum scholars early in the development of the field. We see the argument about basic philosophy of the school as a social institution through the curriculum postures taken by persons who were either society-centered, child-centered, or interactive in their basic outlooks. We see basic issues about curriculum design ranging from formal organization of school subjects to the experience notion. And we see issues about the selection and involvement of persons in curriculum building tasks as well as the tasks themselves. However, the more or less technical aspects of curriculum theory building really did not begin to enter the literature until the 1950's.

⁷Seguel, *op. cit.*, pp. 137-175.

Later Developments

About mid-twentieth century, discussions of curriculum theory *qua* theory began to appear in the literature. The first large-scale discussion of curriculum theory took place at the University of Chicago in 1947. The papers presented at that conference were published in a monograph in 1950.⁸ Each author of a paper was given virtually complete freedom to treat his topic individually, inasmuch as the composite papers made no pretense at covering the field of curriculum theory comprehensively. It is significant to observe that in one of the overview sections of the report, the following three-fold task for curriculum theory was prescribed:

- (1) to identify the critical issues or points in curriculum development and their underlying generalizations; (2) to point up the relationships which exist between these critical points and their supporting structure; and (3) to suggest and to forecast the future of approaches made to resolve these critical issues.⁹

And in a concluding chapter the following challenge was issued:

- As a further effort in hastening the communications between groups of interested people and in the development of more adequate theory, someone might spend time trying to describe the nature of such theory, its tasks, its subject matter, its tests, and its uses.¹⁰

What has come to be called the Tyler rationale was published in 1950. The rationale revolves around four central questions:

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?¹¹

This formulation has been the one most persistently used with reference to curriculum theory since its publication. The questions raised by Tyler had been raised by other curriculum scholars

⁸Virgil E. Herrick and Ralph W. Tyler (eds.), *Toward Improved Curriculum Theory*, Supplementary Educational Monograph, Number 71 (Chicago: University of Chicago Press, 1950).

⁹*Ibid.*, p. 1.

¹⁰*Ibid.*, p. 121.

¹¹Ralph W. Tyler, *Basic Principles of Curriculum and Instruction* (Chicago: University of Chicago Press, 1950), pp. 1-2.

before him, but his unique statement has been well popularized.

At least in partial response to the challenge issued in the Herrick and Tyler monograph previously cited, namely, that someone might spend time trying to describe the nature of curriculum theory, the first edition of this book (*Curriculum Theory*) appeared in 1961. It was the first single volume to present an organized statement of the status and dimensions of curriculum theory based upon conceptual structures and relationships derived from theory building efforts in closely related disciplines. The second edition (1968) was done in the same spirit.

Two papers given at the 1963 National Conference of the Association for Supervision and Curriculum Development contributed to the dialogue about curriculum theory. The conference, in part, consisted of a series of seminars one of which had curriculum theory as its topic. Two papers were given at the seminar which pointed up a major dilemma in curriculum theory, and the dilemma remains unresolved at this writing. The paper titles reveal the two sides.

One of the papers was given by Beauchamp wherein he analyzed the approach of the scientist to the tasks of theory building in curriculum.¹² In this presentation, curriculum theory was related conceptually to theory building in other domains of knowledge. The basic principles common to all, as seen by the scientist, were stressed. Careful and consistent use of technical terminology, analysis and classification of knowledge and conjecture, and the use of predictive research to increase the number of firm generalizations, or laws, were cited as principles that would give better explanation for curriculum phenomena.

The second paper has as its theme the role of philosophy in the development of scientific curriculum theory.¹³ In the paper, Smith outlined three principal tasks with which philosophy can deal in aiding the curriculum theorist: (1) to formulate and justify educational purposes, (2) to select and organize knowledge, and (3) to deal with verbal traps. In identifying these three tasks, Smith

¹²George A. Beauchamp, "Developing a Scientific Theory in Curriculum." A paper presented at the national conference of the Association for Supervision and Curriculum Development, NEA, St. Louis, Missouri, 1963.

¹³B. Othanel Smith, "The Role of Philosophy in the Development of Scientific Curriculum Theory." A paper presented at the national Conference of the Association for Supervision and Curriculum Development, NEA, St. Louis, 1963.

noted several weaknesses in the development of curriculum theory. Too frequently, he said, curriculum theorists fail to recognize the interrelationships between educational objectives and the content of a school program. Sometimes the content itself becomes an objective, or a series of objectives. Too often, criteria for selection of content or objectives are not apparent, if they exist at all. In selecting content, a curriculum theorist must take into account the nature and structure of knowledge. He will be at great disadvantage if he fails to discriminate among factual information, values, and general principles. All of these kinds of problems are intimately related to the language used in curriculum theorizing. Progress is inhibited when basic concepts that are repeatedly used need clarification.

We note here that these two papers brought several facets of curriculum theory into sharp focus. One is that theorizing about curriculum is not solely a matter of establishing facts and relationships among empirical data. More than that, the theorist must be concerned with choices and the consequences of those choices, and at this point, the world of values confronts him. The theorist is concerned with choices at the levels of selection of purposes and content in response to those purposes. Science is of little help to him here. However, a disciplined language is a necessity whether he is calling upon the techniques of science or the wisdom of philosophy.

The use of models in theoretical work also has invaded curriculum theory efforts. A very useful contribution in this area was made by Macdonald in a paper given at a meeting of professors of curriculum.¹⁴ In this paper, Macdonald distinguished four systems prevalent in schooling: curriculum, instruction, teaching, and learning. By use of a Venn-type diagram, he identified the interactions of the four systems. Then he analyzed the curriculum system using a general systems model characterized by the components of input, content and process, output, and feedback. At least two unique ideas emerge from Macdonald's paper. One is that we can clarify our thinking about curriculum if it is identified as a unique system of schooling. The other is that the use of the

¹⁴James B. Macdonald, "Curriculum Theory: Problems and A Prospectus." Mimeographed, a paper presented at the Professors of Curriculum meeting, Miami Beach, April, 1964.

general systems approach helps to define the kind and scope of conceptualizations needed in curriculum theory.

A slightly different schema for schooling was developed by Broudy, Smith, and Burnett. It is shown in Figure 5. In it, curriculum is depicted as part of a total system of influence directed at students. Modes of teaching are included as part of the curriculum components in the diagram, but in the accompanying text, the authors state: "Although modes of teaching are not, strictly speaking, a part of the curriculum, for practical purposes it is not useful to ignore them entirely in curriculum theory."¹⁵ This statement would lead us to believe that Broudy, Smith, and Burnett would not significantly disagree with Macdonald's distinction between curriculum and teaching.

Beauchamp reviewed the progress made in curriculum theory between the years 1960 and 1965.¹⁶ As a framework for discussing the research and writings about curriculum theory, he identified six components of curriculum as a field of study. These were foundational influences, subject matters, curriculum design, curriculum engineering, evaluation and research, and theory building. He noted that most progress was being made in the areas of subject matters and curriculum engineering. *

Faix applied structural-functional analysis as derived from biology, sociology, and anthropology to the task of refining curriculum concepts. A curriculum function was described as what is done; a curriculum structure, as how it is done. In other words, curriculum functions describe the process by which curriculum structures are maintained or changed. A list of questions raised by a structural-functional analysis of curriculum phenomena was presented, and the titles and sub-titles of the list were termed a tentative classification of curriculum phenomena. They were: (1) general questions about curriculum phenomena, (2) questions about a curriculum system, (3) questions about units of analysis and elements, (4) questions about the structure of a curriculum system, (5) questions about the functions of a curriculum system, (6) questions about curriculum processes, and (7) general questions X

¹⁵*Ibid.*, p. 79.

¹⁶George A. Beauchamp, "Progress in Curriculum Theory 1960-1965," Mimeographed, a paper presented at the annual conference of the American Educational Research Association, NEA, Chicago, 1965.

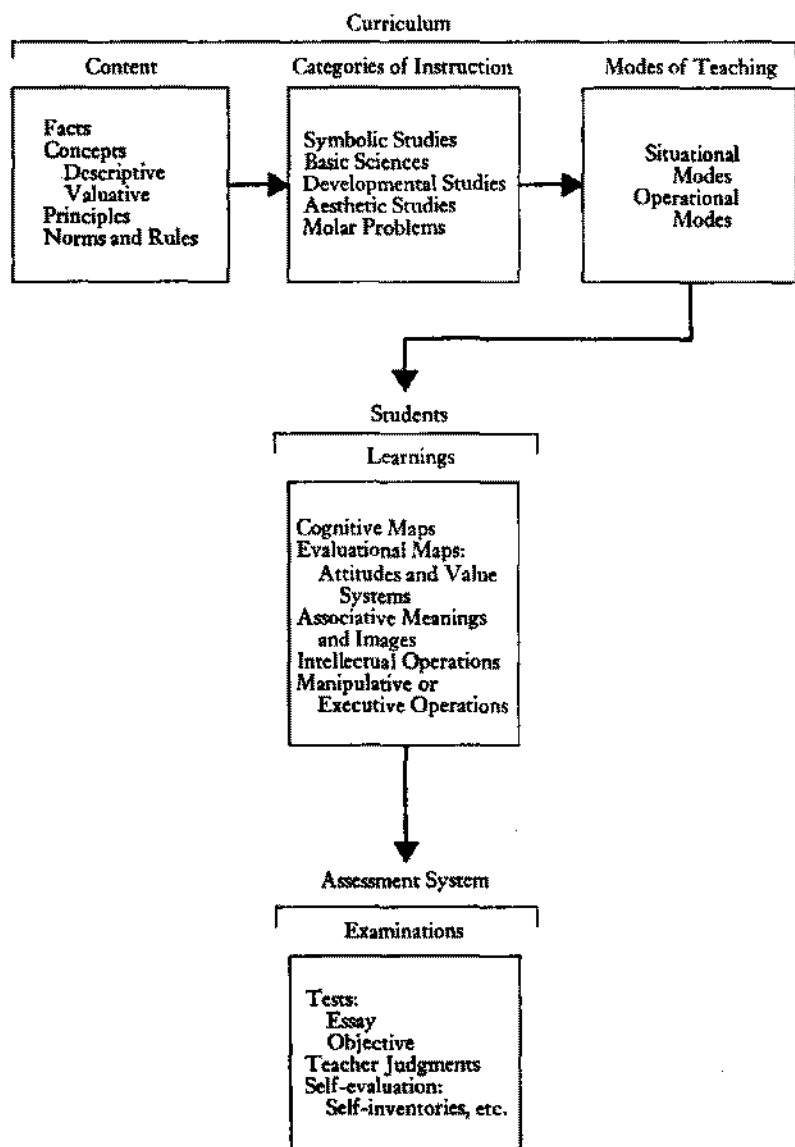


Figure 5. *A schema for schooling.* Adapted by permission from Harry S. Broudy, B. Othanel Smith, and Joe R. Burnett, *Democracy and Excellence in American Secondary Education* (Chicago: Rand McNally and Company, 1964), p. 78.

about structural-functional analysis procedures.¹⁷ Since classification is a foundational step in scientific theory construction, this contribution warrants attention and development.

Maccia analyzed four types of curriculum theory: curriculum theory (event theory), formal curriculum theory, valuational curriculum theory, and praxiological curriculum theory.¹⁸ Curriculum theory (event theory) was described as the sorting out and characterizing of events and relating them. In this connection, Maccia suggested that curriculum could be subsumed by a theory of instruction, thereby intimating that curriculum theory should be a sub-theory of instructional theory. Formal curriculum theory is focused on the structure of curriculum content. Valuational curriculum theory is concerned with the issue of what instructional content is the most valuable to present. And praxiological curriculum theory is speculation about appropriate curriculum means for reaching curriculum objectives. We may not agree with Maccia that so many labels are needed, or with the meanings she has assigned to curriculum, but she does help us to see more clearly that curriculum theory has several dimensions such as classification, design, values, and operations, all of which must be accounted for in a full explanation of curriculum theory.

A very interesting analysis of the use of definitions and models in curriculum theorizing was made by Johnson.¹⁹ Whereas Maccia had implied that the definition of curriculum should emerge from the results of theory building, Johnson insisted upon a definition of curriculum as a directive force for the theory builder. He claimed that past efforts in curriculum theory have been either programmatic or analytical and that the programmatic works have been concerned with curriculum positions with primary emphasis upon curriculum development. Johnson distinguished between curriculum and the process of curriculum development. For him, a curriculum is the output of a curriculum development system, but the curriculum development system is not curriculum. We clarify

¹⁷Thomas L. Faix, "Structural-Functional Analysis as a Conceptual System for Curriculum Theory and Research: A theoretical Study." Mimeographed: a paper presented at the annual meeting of the American Educational Research Association, NEA, Chicago, 1966.

¹⁸Elizabeth Steiner Maccia, "Curriculum Theory and Policy." Mimeographed, a paper presented at the annual meeting of the American Educational Research Association, NEA, Chicago, 1965.

¹⁹Mauritz Johnson, Jr., "Definitions and Models in Curriculum Theory," *Educational Theory*, 17:127-140, April, 1967.

this a little more by noting that Johnson depicted curriculum as a structured series of intended learning outcomes. Curriculum so conceived relates to intentions rather than to occurrences. Under this definition, experiences that pupils have under the jurisdiction of a school become part of the domain of instruction. Like Faix, Johnson winds up his analysis with a six-point schema for curriculum:

1. A curriculum is a structured series of intended learning outcomes.
2. *Selection* is an essential aspect of curriculum formulation.
3. *Structure* is an essential characteristic of curriculum.
4. Curriculum guides instruction.
5. Curriculum evaluation involves validation of both selection and structure.
6. Curriculum is the criterion for instructional evaluation.²⁰

Others before Johnson have depicted a curriculum as the output of a curriculum system and the input of an instructional system. It is necessary for a system to have both input and output geared to the feedback from evaluation in order to maintain the steady state that is characteristic of a system.

Johnson later reinforced and amplified his position that a curriculum is designed to promote and guide instructional planning which in turn guides instruction leading to learning outcomes.²¹ Using a rationale very similar to that of Johnson, Posner analyzed the components of education and stated that curriculum, instruction, and learning outcomes are the components needing clarification. He claimed that, for purposes of theory and research, curriculum must be conceived to be product-oriented, prior to instruction, and descriptive.²²

Frymier reported on a series of discussions about curriculum theory held with his colleagues at Ohio State University.²³ He took the position that curriculum consists of three basic elements: actors, artifacts, and operations. Actors, according to Frymier, are persons directly involved with curriculum. Artifacts are the

²⁰*Ibid.*, pp. 136-139.

²¹Mauritz Johnson, Jr. "The Translation of Curriculum Into Instruction," *Educational Theory*, 1:115-131, May, 1969.

²²George J. Posner, "Education: Its Components and Constructs." Mimeographed, a paper presented at the Annual Convention of the American Educational Research Association, Chicago, Illinois, April, 1972.

²³Jack R. Frymier, "Around and Around the Curriculum Bush or In Quest of Curriculum Theory." A paper presented at the meeting of Professors of Curriculum, Dallas, Texas, 1967.

content of the curriculum including design problems. Operations are the processes involving the interaction of actors and artifacts. The basic unit for study in curriculum is to include three phases: (1) that which is planned, (2) that which occurs, and (3) the evaluation.

In his provocative book, *The Open Access Curriculum*, Wilson proposed that curriculum theory is most properly conceived as humanistic rather than scientific and that open access curriculum theory will be a compatible combination of knowledge theory, environmental theory, and management theory.²⁴

Goodlad and Richter reported the results of their deliberations on the development of a conceptual system for dealing with problems of curriculum and instruction.²⁵ The study used the Tyler rationale as its primary point of departure but considerably expanded and operationalized its constructs. A conceptual system was defined as ". . . a carefully engineered framework designed to identify and reveal relationships among complex, related, interacting phenomena. . . ." ²⁶ The authors thus conceived a conceptual system to be more general than a theory but a basis for directing theory building.

The report depicted the authors' analysis of the process of constructing what they called a rational curriculum. The process principally consisted of making use of man's funded knowledge and conventional wisdom as data sources for curriculum decisions. Utilizing these sources, curriculum decision makers would identify pertinent values to be used in deriving educational aims. Decisions about educational aims would lead to general behavioral objectives. From behavioral objectives the identification of behavioral and substantive elements follow and lead to decisions about learning opportunities and organizing centers for students. We will return to many of the details of this very well-conceived curriculum rationale as it applies to our discussions of curriculum engineering and curriculum design as sub-theories of curriculum theory.

The curriculum field continues to be explored historically.

²⁴L. Craig Wilson, *The Open Access Curriculum* (Boston: Allyn and Bacon, Inc., 1971), p. 65.

²⁵John I. Goodlad and Maurice N. Richter, Jr., "The Development of a Conceptual System for Dealing with Problems of Curriculum and Instruction," Report of an inquiry supported by The Cooperative Research Program of the Office of Education, U.S. Department of Health, Education, and Welfare, Contract No. SAE-8024, Project No. 454, 1966.

²⁶*Ibid.*, p. 1.

Bellack reviewed studies of the historical development of curriculum thought and practice.²⁷ Kliebard analyzed the curriculum field from its beginnings.²⁸ He concluded that the basic problem of the curriculum field is one of self-identification, and suggested that we ". . . create a dialogue among ourselves and with our professional forebears."²⁹ Alpren and Baron reviewed curriculum literature in search of procedural options for developing curriculum. They identified seven: (1) adult surveys, (2) job analysis, (3) teacher committees, (4) analysis of the sources of objectives, (5) disciplinary structures, (6) behavior modification, and (7) humanistic-individualistic. It was suggested that an eighth was emerging, namely, interdisciplinary curriculum development.³⁰ Short examined the state of knowledge in the curriculum field. He was able to depict six categories of personnel involved in the scholarship, nineteen kinds of curriculum activity, and thirty-four types of scholarly source material produced.³¹ Such historical and analytical efforts in curriculum are not specifically theory development, but they do help us see more clearly the dimensions of the total field within which the theorizing must be done.

EMERGING STATUS OF CURRICULUM THEORY

From the foregoing and other exemplars in curriculum thinking and the identified processes essential for curriculum theory building, an emerging status of curriculum theory can be explicated. It is said repeatedly in curriculum literature that a need exists for dialogue between and among curriculum theorists and practitioners about debatable issues in curriculum. The intention of this claim is that such debate would help to define a tradition of content for the curriculum field. It also is said repeatedly in

²⁷Arno A. Bellack, "History of Curriculum Thought and Practice," *Review of Educational Research*, 39:283-292, June, 1969.

²⁸Herbert M. Kliebard, "The Curriculum Field in Retrospect," *Technology and the Curriculum*, ed. Paul W.F. Witt (New York: Teachers College Press, Columbia University, 1968), pp. 69-84.

²⁹*Ibid.*, p. 83.

³⁰Morton Alpren and Bruce G. Baron, "Procedural Options in Developing Curriculum." Mimeographed. A paper presented at the Annual Convention of the American Educational Research Association, Chicago, Illinois, April 4, 1972.

³¹Edmund C. Short, "Curriculum Scholarship: Sources of Knowledge for the Curriculum Field," *A Search for Valid Content for Curriculum Courses, 1970/Educational Comment* (Toledo: College of Education, University of Toledo, 1970), pp. 7-19.

curriculum literature that the substance for the called-for dialogue is not known or recognized. I disagree with these laments for it seems to me that certain substantive problems and issues are before us, and most of them have been for some time. In the following paragraphs, I shall indicate what some of these substantive problems and issues are under the general categories of: (1) curriculum definition, (2) sources of curriculum decisions, (3) issues and problems of curriculum design, (4) issues and problems of curriculum engineering, and (5) theory implications.

Curriculum Definition

There is grave need for the definition of the existant range of meanings that are to be associated with the scope of events that belong to the curriculum field. The definitional behavior must answer such questions as: Is curriculum a concept unique to schooling? Does curriculum include instruction or teaching? To what extent are pupil learnings a part of curriculum? What is the total scope of curriculum as a field of study?

The above are general questions about the character of the curriculum field. There is specific need to define the range of meanings about what the ingredients of a curriculum are. This definitional process would generate the characteristics of curriculum design. Should a curriculum contain a set of behavioral or other kind of objectives? Should a curriculum contain recommended, or prescribed, content that may be used to achieve the objectives? Should a curriculum specify instructional plans and materials? Similarly, there is specific need to identify the range of meanings associated with curriculum planning, implementation, and evaluation. Some of the options in definition of curriculum design and curriculum engineering will be discussed later. The point I wish to make here is that the process of carefully and consistently defining significant curriculum areas, terms, and operational constructs is recognized in literature even though it may not be done well or by enough people.

Sources of Curriculum Decisions

When the curriculum field has been analyzed historically, clusters of sources, or foundational considerations for curriculum

decisions are enumerated with considerable consistency. A number of these have been mentioned previously, but they bear repetition here. I make no claim that the cited examples are exhaustive, but the ones indicated here are before us as curriculum people, and they are sources for debate for both theoreticians and practitioners.

Early curriculum scholars advocated the adult survey and job analysis as principal bases for determining curriculum content. To some extent, certain aspects of these proposals are still with us. Advocates would say that there ought to be some relation between school life and post-school life. The concept of transfer of training is not only important for the sequential organization of subject matter in the curriculum, it is relevant to school and post-school life too. Curricula for vocational education, for example, still demand constant examination of this kind.

Man's accumulated culture is a well-recognized source but one in which there are options that have been debated heatedly, and we will profit if the debate continues. One proposal is to select curriculum content only from the recognized disciplines. Another is that there is a body of basic subject matter for schools. A third is that subject matters should be integrated. With growth in man's funded knowledge, curriculum planning is more and more becoming a process of careful selection and organization.

The student as a source is frequently placed in opposition to the culture content source. The rally cry is that the interests and needs of students must be satisfied. At least three approaches to this source of information are advocated. One is to conduct needs assessment programs to furnish data for curriculum decisions. A second is the identification and description of developmental stages of children and youth. A third is much more radical, and that is to simply have the student tell you what he wishes as his curriculum.

Culture-, or society-centered sources, and learner-centered sources are not mutually eliminating in modern thinking. Most theorists of today would insist that it must be both, but where they divide is on the point of primary emphasis. For one group, the school is primarily an agency of society in rearing of children and youth, but the children and youth are respected members of the social group who have interests and needs that must be satisfied

within the culture of the school. For another group, the learner and his emerging needs must dominate decisions about school curricula, but there are bodies of culture content that are significant for learner development.

Certainly, our past experience in curriculum affairs is a source for curriculum decisions. Curricula for our schools have evolved through many stages from that of the Dame Schools of New England to those of the expanded and complex elementary and secondary schools of today. We have a history of curriculum developments in individual schools, school districts, states, and in the large national-level projects of the 1960's. This body of experience is an idea resource for those who make curriculum decisions either as to curriculum content or processes.

The values held by those concerned with determining the nature of the curriculum are an extremely dynamic source for decision making. The primary curriculum question is: What ought to be taught in the school? It is essentially a value question that must be answered by the decision makers, and the decision makers have to make use of recognized values in two ways. One is to determine what values are to be taught through the implementation of the curriculum in the school, and the other is to identify what values they are going to use for themselves as rule-governing behavior, or criteria, in making curriculum decisions. We shall discuss the significance of values in curriculum theory in greater detail in the next chapter.

Finally, we must consider social and political authority as a source for curriculum decisions. In the United States, the local board of education, acting under the authority of the state, is the policy-making body for school operations. The curriculum for a school under the jurisdiction of the board is the most important policy the board has to make. It is true that many others may participate in the development of a curriculum, but the ultimate decision that the planned curriculum is the one to be implemented through the instructional program of the schools is made by the school board. From time to time, state legislatures pass laws demanding that certain subject matters be taught in all schools in the state. State departments of education prescribe school codes that affect curriculum decisions. Parent and teacher groups have exerted tremendous influence. In recent years, teacher unions are

demanding greater voice in curriculum determination. Such authorities are more valuable for curriculum decisions as a source, or resource, than when they are left to act in judgment after the fact of a curriculum that has been planned and implemented.

Curriculum Design Issues

Curriculum design has been under discussion in curriculum literature for years. Some of the issues that have been debated are very clear; others are less so. Nonetheless, the acceptance of a point of view is essential in theory building, and divergent points of view should lead to different theories.

One very clear and simply stateable issue in curriculum design revolves around whether a curriculum should be a written document or not. Most contemporary curriculum specialists would advocate that curricula should be expressed in written form. Others feel that commitment in writing is in itself restrictive upon teachers in planning for teaching. The latter have less concern for structure in curriculum than the former.

The sphere of the curriculum is very important conceptually. Is a curriculum a design for a particular level of school such as the elementary school, the middle school, or the secondary school? Is the curriculum a design for an entire school district regardless of how many levels of school there are? Should a curriculum include all subjects so that a total conception of an educational plan is expressed? Is it appropriate to talk about a mathematics curriculum? These questions have to be answered in order to take a posture on curriculum design.

The contents of a curriculum are debated at length. Some would project that a curriculum should be only a set of intended learning outcomes. The language of goals, aims, and objectives are employed here. An important issue is whether or not the statements should be in the form of behavioral objectives. Others contend that a curriculum should contain more than statements of intended outcomes whether they are stated behaviorally or not. The content, or subject matter, to be used as means for achieving objectives is considered by some to be a necessary ingredient of a curriculum. Issues are present in discussions about the nature of the content and its organization. Advocates of discipline-centered

organization are opposed by those who push for integrated subject matters. Added to these are the issues of scope, sequence, and articulation. Those who believe that a curriculum should be an expression of both what to teach and how to teach would want included matters of method, instructional materials, evaluation plans, and so forth. The posture in curriculum theory one assumes with respect to the content of a curriculum inevitably will be of great influence upon the remainder of his position.

Issues in Curriculum Engineering

The most clear-cut issue in curriculum engineering has to do with who will be involved in curriculum planning. Individuals on one side of the issue propose that teachers should be the dominant group to be involved. Their opponents would prefer that specialists in the subject or discipline areas should do the job. Related to this issue is some confusion between involvement in planning and involvement in implementation of the curriculum once it is planned. The involvement of lay citizens is both proposed and opposed.

Curriculum implementation is more of a problem than an issue. Once a curriculum is planned, its implementation is not at issue, but how it is to be implemented, including leadership in the process, becomes a problem. Our history indicates that there have been many curriculum planning efforts wasted because leadership has not been exercised over the implementation process.

Similarly, curriculum evaluation is more of a problem than an issue. Everyone agrees that a curriculum should be evaluated. The problem is how. The use of achievement measures as the sole criterion for curriculum evaluation is an indication of the need for additional alternatives.

If curricula are to be planned in local schools or school districts, the above issues and problems in curriculum engineering are symptoms of need for a deliberate system within school organization for making and executing decisions involved in curriculum planning, implementation, and evaluation. However, the details of such systems cannot be conceptualized unless the arena (the school, the district, the state, or other) has been identified. Some will claim that the "real" theoretical issues of

curriculum are those associated with curriculum design and that the practical affairs of curriculum in schools and school systems are praxiological and therefore not theoretical. I choose to differ with this notion. I believe that curriculum theory is just as concerned with explanation of curriculum engineering as it is with explanation of curriculum design. Hence, we will return to more elaborate discussion of theory building in these two sub-areas of curriculum in later chapters.

Theory Implications

Many of the issues and ground rules for theory building around those issues have been laid down in the literature. I conclude this chapter with the following five statements that seem to me to be warranted generalizations so far:

1. Any curriculum theory should begin by defining its set of events.
2. Any curriculum theory should make clear its accepted values and sources for making decisions.
3. Any curriculum theory should specify the characteristics of curriculum design.
4. Any curriculum theory should describe the essential processes for making curriculum decisions and the interrelationships among those processes.
5. Any curriculum theory should provide for continuous regeneration of curriculum decisions.

Such statements are much easier to state than to follow in theory-building work in curriculum, but they can serve as background for amplification of more specific studies and postulations in the following chapters on values, curriculum design, and curriculum engineering.

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