Chapter 6

METHODS AND TOOLS FOR CURRICULUM WORK

In 1707, four British Navy ships carrying troops were lost on uncharted rocks at the Scilly Islands on the southwestern coast of England. Why? They were off course because they lacked the appropriate navigation tools to determine their location. The event, as told in the book *Longitude* (1995) by Davia Sobel, prompted a search by the British Admiralty for a reliable way to determine longitude, the east-west positioning part of the latitude-longitude equation. It was a dogged British clockmaker, John Harrison, who finally succeeded with the chronometer. Navigation tools evolved, from compass to astrolabe to sextant, but it was the chronometer that ruled the waves until the advent of modern GPS, the global positioning system. The chronometer is an interesting example of a tool because it combines a "mind tool," Mr. Harrison's knowledge of clocks, with the development of a "mechanical tool," the chronometer. There are, of course, various classifications of tools. Screwdrivers and hammers, for example, represent

"hand tools," whereas foundry presses that stamp out automobile parts are "industrial tools." Now, there are robots, lasers, satellites, and other kinds of "technological" and "cyber" tools.

KNOWLEDGE TOOLS AND CURRICULUM TOOLS

Humans are not the only toolmakers; apes, chimps, and birds have been observed using tools to facilitate food gathering. The video that captured the crow flying down to the street, dropping a nut on the pavement, waiting for a vehicle to run over it, and then retrieving the meat, is one you may have seen on various television programs. What humans have over other animals is the brain to develop mind tools, the kinds of thinking that produce other tools. To human advantage, those mind tools have been captured as kinds of *knowledge tools,* things to be learned in the formal knowledge of disciplines and fields where work is creating and validating useful knowledge. Discipline workers, the cadre of scholars, researchers, and practitioners, often talk about theory, models, and critiques, the knowledge and mind tools in their work. Tool use, even the tool itself, can vary across disciplines. Also, reading about the use of one tool or another can give the impression that each category is something unto itself rather than one tool of a set for workers to employ, each tool having a particular use or a range of applications. For any kind of tool, it is important to understand and respect its application in each discipline.

Curriculum, like any discipline, has a set of tools that is used by practitioners in different ways. Part of the foundational knowledge that is important in curriculum work involves understanding those tools and their use. The tools, as they are employed, acquire more specialized meaning modified by the particular work of the discipline. Theory in curriculum differs in meaning and use from theory in other disciplines such as economics or physics or history. In curriculum work, it is important to remember that tool use occurs in a curriculum frame of reference, a curriculum perspective. The tool set in curriculum work includes theory, models, and critiques.

CURRICULUM THEORY

Theory in curriculum work has a muddled history. Curriculum theory originated in the early 20th century primarily among progressive educational scholars as a formal way to present ideas and arguments to improve schools through curriculum. These proposals were made in a written format that usually detailed the purposes for the curriculum and the contents to be included. Tradition seems to suggest that what was claimed as theory was accepted as theory. From those early beginnings to the present, curriculum theory development has primarily been the province of university academics. George Beauchamp's *Curriculum Theory* (1961) and Mauritz Johnson's article "Definitions

and Models in Curriculum Theory" (1967) are two examples of writings about curriculum theory that try to give it form by definition and substance by describing its features and use. Nearly thirty years later, Decker Walker provided this useful definition:

> A curriculum theory is a coherent and systematic body of ideas used to give meaning to curriculum phenomena and problems to guide people in deciding on appropriate, justifiable actions. (1990, p. 133)

Those important works and a definition aside, there appears to have been little consistent effort to gradually bridge between the curriculum theorizing of the early educational progressives and the contemporary context, the exception being William Pinar's book (2004) *What is Curriculum Theory?* Part of the problem was finding other ways than definitions to describe curriculum theory that acknowledged the nature of its use as it developed. Curriculum theory, being descriptive in form, will have, as Walker noted, a basic set of carefully articulated ideas intended to illuminate phenomena and problems or guide practice. Concomitantly, the definition for theory used in this text takes in that practice sense of theory; *curriculum theory* is a set of propositions, observations, facts, beliefs, policies, or procedures proposed or followed as a basis for curriculum action. Although definitions help, the use of curriculum theory usually gives it particular characteristics, often describing it better. Decker Walker provided useful thinking about that by articulating a set of criteria for curriculum theory, which is presented in Figure 6.1.

Figure 6.1   Walker's Criteria for Curriculum Theory

Validity

There is clarity in the exposition, definition, and presentation of the ideas. There is no apparent internal contradiction, and ideas are consistent with what is known.

Serviceability

The aim of theory is to assist practice, so it should address the conditions of practice; it should be realistic.

Power

The theory has promise for wide application in matters of practice and potential for prediction and control in matters affecting curriculum work.

Morality

The theory is grounded in acceptable values upon which judgments issuing from its use would be considered ethical and moral.

What are important in his formulation are the criteria. Because they move beyond definitional words to qualities that are observable, they can be used to make professional judgments about theory and its use in practice. They bridge between the "form" of theory, its format for presentation, to matters about what constitutes theory, its "substance."

Theory Form and Substance

Curriculum matters are often cast in theoretical terms, and curriculum theory has its own particular nature. Much of the theoretical conversation has been about improving schooling and education rather than about theory as a tool to understand curriculum, schooling, and other educational matters. Theory making in curriculum is descriptive, involving a particular format, or form, that addresses the manner of presentation within which is a discussion of the theory itself. These matters of form and substance in theory making are summarized in Figure 6.2 that follows.

The form of presentation evolved as a written set of ideas openly advocated and scientifically defensible. The use of the term *scientific* was intended to grace the work with a certain respectability. What scientific implied at the time was (a) a carefully constructed scholarly and philosophical discourse, (b) presentation of a thoroughly articulated set of logically consistent ideas or propositions, and (c) supporting arguments that were vigorous and pragmatic. Considering the appropriateness of theory, form was essentially a pro forma judgment similar to knowing the parts that constitute a book and looking to see if they are all there. Similarly, when considering a second aspect of theory, the matter of substance, the object and intent of theory, other characteristics of

Figure 6.2   Considerations in Curriculum Theory Making

Form of a Theory

The matter of format or how it is presented in writing.

- Is it a cogent, orderly, sequential set of ideas?
- Initial assessment of credibility; does it seem reasonable based on what is known?

Substance of a Theory

Addressing what the theory contains and if all the elements proposed hold together in a logical way, are complete in their illustrations, with special attention to whether

- *Commonplaces* are addressed appropriate to the theory.
- A *plan of curriculum* is provided so the purpose-to-practice sense of application can be assessed.
- There is a *logical explanation* or argument in support of the idea.
- The *power* of the theory is suggested by the discussion of potential use and suggested results the theory might produce in practice.

curriculum theory apply. As in reading a book, concern is for the thesis, and whether the discussion in support of the book's thesis holds together and is credible. In a curriculum theory, the expression of purpose should address the links between knowledge and practice. These links were introduced to you in Chapter 4 (see Figure 4.1) through what are referred to as the *commonplaces* in education: the student, or learner; the content, or what is to be learned; the context in which curriculum is offered; and the enabling agents present, such as the teacher. Because one purpose for curriculum theory is to guide practice, a theory must address those commonplaces.

Another aspect in curriculum theorizing is to present a *plan of curriculum,* what the curriculum should look like, a reference to the proposed scope and sequence. This plan is an important inclusion, what Vallance in discussing systems of curriculum (1999, p. 58) calls the building of conceptual maps. The use of theory among early pioneers in curriculum was more like critiques of curriculum, proposals about conditions surrounding curriculum or ones advocating a position on some curriculum matter. They suggested scope and sequence of content but lacked details. Books such as Franklin Bobbitt's *The Curriculum* (1918) represent ways of doing things, methods, a process approach to purposes for schools rather than the organization of a particular curriculum and its content. John Dewey, in his seminal work *The Child and the Curriculum* (1902), provided a vision of and details for determining and building a curriculum, something he was later to implement in his famous Laboratory School at the University of Chicago.

A third condition of theory is to have a *logical explanation.* A number of criteria apply. First, the theory must hold together; it must be logically consistent. Second, the particulars must be factually correct in light of current knowledge. The theory must also be justified on the merits of the argument put forth for it. It should also back up or be linked to some aspect of actual practice. Finally, the theory should have a quality of probability; it appears to be practical and doable. A logical explanation plus the other qualities would suggest a rational fit of theory into practice, a hallmark of good theory in early curriculum thinking. Today, having logical fit does not by itself satisfy the claim for a theory of curriculum.

A fourth consideration in curriculum theory making is what Decker Walker (1990, pp. 138–139) calls the *power* of a theory, referring to the prospect that a theory allows prediction and control, permitting efficient and effective action with curriculum in given situations. The theory should therefore identify indicators of and suggest possible effects the theory might produce, allowing the deduction of possible consequences from acting on or implementing the theory.

Judging and Using Curriculum Theory

Proposing a curriculum theory is one thing; substantiating it as theory is quite another. If it does not address the suggested framework elements—power, logical explanation, a plan, considering the commonplaces, and adherence to a formal style of

presentation—then its acceptance as a theory is problematic. This is not to argue whether a proposed theory is good or bad but to establish some criteria for use in judging whether it should be considered as a curriculum theory in the first place. The difficulty is sorting out theory from proposals about making theory from those that are about theorizing itself, or from other tools like the critique. If a purported curriculum theory addresses most of or all the criteria, then it should be acceptable as a curriculum theory. Ultimately, the true test, the worth of a theory, will come in its use, whether it successfully guides practice, helps to solve problems, or leads to furthering new knowledge in curriculum work.

In new disciplines like curriculum, creating the conventions for theorizing is an important part of discipline work. To illuminate more about curriculum theory, sample some examples of theory work, and indicate the diversity of thought and theorizing, several examples are offered. The first is a summary of progressive theory making. The second is a consideration of Mortimer Adler's *The Paideia Proposal* (1982), and third is a discussion of *Realms of Meaning* (1964) by Philip Phenix.

Progressives

Curriculum theory, as has been noted, originated with participants in the progressive movement in education during the 1920s. These were essentially writings about ideas to improve schooling by creating and implementing new curriculum to replace the traditional one that predominated in schools. It was basically a conversation among college- and university-based professors writing to convince one another and the general public about curriculum matters. Franklin Bobbitt represents the manner of thinking and theorizing among progressives in these comments:

> The central theory [of curriculum] 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 can 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 their 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 obtaining those objectives. (1918, p. 42)

Another of the educational progressives, Harold Rugg, proposed a curriculum theory based on a new synthesis of knowledge for schools in which "the conventional barriers between the existing subjects must be ignored in curriculum making [and the new] *starting points* shall be the social institutions, or the political and economic problem, and the

capacities of children" (1927a, p. 155). Note the emphasis in both examples of alternatives to traditional subjects. Theory and other ideas about curriculum usually appeared in the form of a published book to convey the theory, proposal, or idea and supporting arguments. Today, that is still the favored venue for advancing curriculum theory, probably because it is the easiest way to disseminate ideas to three essential audiences: others in the academic community; the general public; and the community of practitioners in the field, particularly teachers in schools. It is not easy to encapsulate the rich array of ideas in progressive theory making. At best, the progressives can be summarized as believing in opening up schooling to curriculum that addressed social, developmental, and other human needs in the practical and real world of daily life. Progressive theory making was about proposals on how to meet those needs by providing schooling for all people.

Adler

Theory making reflects the contesting of traditional, knowledge-centered ideas with the diverse ideas of the educational progressives. *The Paideia Proposal* (1982) of Mortimer Adler is representative of theories that counter the ideas of the progressives and offer an alternative based on traditional subject matter as the basis for school curriculum. The essentials of Adler's proposal are two: first, that American society must provide both a quality education for all and equal access to that education; and, second, that there should be one form of curriculum for all that prepares students for earning a living, citizenship, and personal development. The basic curriculum Adler proposed will sound familiar: fine arts, history, mathematics, natural science, geography, and social studies. All the subjects, mathematics and so forth, would be the curriculum for the middle and high school. The elementary curriculum would have the same subjects with the exception of substituting socials studies for history and geography. Adler proposes this as the basic curriculum but subject to individualization according to learner needs. He also advocates opportunities for limited vocational interests, physical exercise, and what amounts to basic human skills like typing as preparation for work. This is a basic meat and potatoes curriculum, a one-size-fits-all, common schooling as prelude to any later specialization through higher education opportunities offered by community colleges, technical schools, apprenticing or on-the-job-training, and, of course, the 4-year college or university.

Phenix

In curriculum theory, the degree to which the curriculum plan is spelled out varies. Usually they are no more than general descriptions with perhaps a listing of courses or content of whatever nature that issues from the theory. In *Realms of Meaning,* Philip Phenix provides an interesting and more detailed plan in support of his particular theory based on the ways of knowing. Knowledge in Phenix's perspective is not about subject

Figure 6.3   Phenix's Realms of Meaning

The thesis for the theory is that the fundamental human motivation is the search for meaning.

Realms	Related Knowledge
Symbolics	Language, mathematics, symbols
Empirics	The physical, social, natural sciences
Esthetics	The arts, literature, and drama
Synnoetics	Philosophy, literature, religion, psychology
Ethics	Ethics, morals values
Synoptics	History, religion, philosophy

matter itself but about "the power to experience *meanings*" (1964, p. 5). Starting first with his philosophical view of human understanding, he proceeds by "mapping . . . the realms of meaning . . . in which the various possibilities of significant experience are charted and the various domains of meaning are distinguished and correlated" (1964, p. 6). What emerge from his analysis are six patterns of human understanding he refers to as symbolic, empiric, esthetic, synnoetic, ethic, and synoptic meaning. Disciplines and the particular meanings with which they are associated, their particular knowledge sources, are summarized in Figure 6.3.

This is the framework of the plan, and the discussion that follows from it in his book details what each realm means before closing with chapters on the scope of the curriculum and the possibilities of inquiry and imagination as the pedagogy for engaging the curriculum.

CURRICULUM MODELS

Models in general are representations of objects, settings, or processes. Model building is important work in disciplines because models function as forms of knowledge that represent what something should be like. They subsume the characteristics of something into a pattern. Models can take many forms: a physical object, a generic formula for application, or a set of criteria for prediction. Model airplanes, cars, and such come to mind in referring to simple physical objects. During hurricane season, the National Hurricane Center often refers to possible storm paths based on prediction models in developing storm strike scenarios. Models in curriculum vary from detail about the scope and sequence of what is to be taught to those that lead you through a process for thinking about a curriculum. Classes of tools usually have a set of familiar

characteristics; hammers, for example, come in different sizes and shapes and have different uses. Curriculum models also have particular sets of general features. They are usually *descriptive,* explaining a process, or *prescriptive,* a set of procedures or a sequence of steps about how to do something. A cooking recipe is an example. The recipe is the process, and the beginner will scrupulously follow it step by step whereas the knowledgeable chef will probably skip through it or modify its use based on his or her experience with it. Models in curriculum are also *practical;* they represent specifics of practice and arise from and are proved by use. The Tyler Rationale introduced in Chapter 2 is an example. Curriculum models can be *replicated;* they can be transported to and used in different settings or under different circumstances. Curriculum models can also serve *constructive* rather than predictive uses because the curriculum is a construction resulting from development activities based on a particular model, but its use or impact can't be predicted based on that model. For example, if you built model airplanes, the result, a construction, is a physical representation of that particular model. However, as hard as you tried to construct it according to the directions and as true to the model as the result might be, the model may or may not fly as you hope or as the information about the model suggests or predicts it will. A fifth quality, the model's *utility,* represents a confluence of a model's practicality, replication, and constructive and descriptive character. Models in curriculum work serve a certain purpose; they are useful in creating curriculum. Finally, curriculum models are not exclusive in their use. Although each separate model may describe a process or procedure, they are often interchangeable, depending on how they relate to or fit the qualities of the contemplated curriculum action. The models of Walker and Freire describe the elements of a deliberation process, that is, they do not follow a road map or set of steps. The models of Ralph Tyler and Hilda Taba present a set of procedures, a series of steps for doing curriculum work. Within Walker's or Freire's processes, it would seem feasible to insert or use a set of procedures, Tyler's or Taba's, for instance, without compromising the intent of the model as long as the decision to use the set of procedures emerged within the deliberative process. As to the issue about whether the models presented are exclusive, the response is probably no. However, for purposes of this text and discussion of particular tools, sets of qualities for different curriculum tools are established. The intent in this text is to categorize curriculum knowledge differently, as tools in curriculum work, for example, and give examples to clarify and differentiate the structural sense of curriculum as a discipline. If some piece of curriculum knowledge reflects the criteria for some structural element, then it has a fit within the structure. Part of the study of curriculum, the understanding of the discipline's logic, is to develop a worker's professional judgment; reflecting on how things fit or relate is part of that practice.

If you were to survey the curriculum literature, you would find that curriculum models accommodate different purposes and uses. There are models for thinking about curriculum matters in a preliminary way, conceptualizing something, like "getting the picture" before formulating plans for action. Others are guides for doing particular

types of curriculum work, such as reaching a consensus on the goals or purposes a curriculum should serve. There are models for solving particular curriculum tasks, like curriculum development. A few serve as a specific plan of curriculum, a model K–12 science curriculum, for example. Others combine aspects of several models and serve multiple curriculum purposes. In general, all curriculum models have the following characteristics: they are descriptive, they apply to specific aspects of curricular practice, they are utilitarian, they address most of the commonplaces, they arise from practice, and they are proven in use. The models chosen for discussion, those by Franklin Bobbitt, Ralph Tyler and Hilda Taba, Decker Walker, Paulo Freire, and Jerome Bruner, exhibit most of the characteristics just summarized.

Bobbitt's Scientific Schooling

The formal beginning of curriculum is often dated from 1918 with the publication of Franklin Bobbitt's book *The Curriculum.* That book, along with his 1924 publication, *How to Make a Curriculum,* is important for two reasons. First, Bobbitt's ideas on curriculum established a prevailing curriculum perspective—the focus of curriculum was the school and schooling. What schools should teach would be determined by studying society, a process of analyzing life in which the school would ameliorate the social problems for which there were no other institutional correctives. By a scientific process of inquiry, the particulars of those social needs—the abilities, attitudes, habits, and so forth necessary for their attainment—would be identified and a curriculum crafted around them. The school was the focus and the professionals to do curriculum work would be the teachers, administrators, and school boards. The emphasis was on local needs and local control. The second important aspect of Bobbitt's perspective was the presentation of a way to do the work, a model process presented in his 1924 text *How to Make a Curriculum.* Work was to proceed in two phases: first, to discover the objectives for the curriculum; and second, to devise experiences for obtaining the objectives. Given the fledgling state of curriculum as a field of academic interest, the political support of forces under the broad banner of the progressive movement, and public support to change the perceived social evils of the time, his ideas were influential because they were practical, portable, and doable.

Tyler and Taba: Evaluation Is Key

Ralph Tyler's early professional career began in school and program evaluation at Ohio State University and with the famous Eight-Year Study during the late 1930s. Out of those experiences, he developed a process for thinking about purposes for schools and how to develop the curriculum. In his famous post–World War II syllabus for a course at the University of Chicago (1949), he articulated the elements of that process.

This is the famous Tyler Rationale, to which you were introduced in Chapter 2 (see Figure 2.3). It is arguably the most pervasive model for doing curriculum work in the postwar years and influential because of its wide use in the training of graduate students as future professors of curriculum or directors of curriculum in school districts. Tyler posed a sequence of questions: (a) What educational purposes should the school seek to attain? (b) What educational experiences can be provided that are likely to attain these purposes? (c) How can these education experiences be effectively organized? and (d) How can we determine whether these purposes are being attained? The first question directs you to the *goals* that schooling and the curriculum should serve, and the second question deals with the *scope* of the curriculum, what should be included to meet those goals. The third question asks how the content would be organized, a *sequence* matter. The last question, how will we know if we achieve the intended, refers to the need for *evaluation.* It is the emphasis on evaluation that is perhaps Tyler's greatest contribution to curriculum thinking and work. From Bobbitt's time to Tyler's, the emphasis in curriculum was on theory building, what might be called an "anything goes" approach that critics derided for its lack of rigor and failure to either address whether or provide evidence that a particular curriculum theory actually worked. What Tyler advocated was evaluation as a way of validating curriculum work, a legacy of his work with the Eight-Year Study.

The Tyler Rationale was eminently useful. It was influential in establishing planning as an important policy action for setting goals from local school districts to a number of national organizations. Perhaps it achieved its most practical use as an applied process at the school and classroom level pioneered by Hilda Taba. Working exclusively with teachers in Contra Costa, California, Taba refined Tyler's model for practical use by teachers. In her book *Curriculum Development: Theory and Practice* (1962), she articulated a curriculum development process for general use by teachers and others at the classroom level. Although her model was for application in all content areas of the curriculum, the research on which it was based was done in the social studies. Taba's reworking of Tyler (see Figure 6.4) is important in several ways.

Figure 6.4   Tyler and Taba

Tyler Rationale		Taba Process
--------------------	☐	Diagnose needs
State purposes	☐	Formulate objectives
--------------------	☐	Organize objectives
Identify experiences	☐	Select experiences
Organize experiences	☐	Organize experiences
Evaluate	☐	Evaluate

First, instead of a general call for identifying objectives, Taba starts with a *diagnosis* of learner needs, creating a needs assessment, as the source for *formulating* objectives. Where Tyler calls for determining the means to attain the objectives, Taba is preemptive, referring to means as the selecting of content and the necessary *learning experiences.* In the classroom, the critical center of curriculum practice, and for the teacher, the critical practitioner, the Tyler-Taba model was a proven tool. It was not just another formula or gimmick; it was a legitimate way to do curriculum development based on research and experience rather than on theory and anecdote.

Walker's Deliberative Platform

Models that emerge based on research or as extractions from the research experience are important for a discipline and for practice. Like the Tyler and Taba models, Decker Walker's Deliberative Model (1971) is based on research experience. He studied groups doing curriculum development and the way they made curriculum decisions. The key feature was the deliberation process and, specifically, getting personal agendas on the table so value positions (perspectives) were articulated openly. He noted that ways of proceeding were not predetermined but negotiated and documented as participants worked their way into and through the task. Their individual and collective beliefs about schools, schooling, and related classroom concerns form what Walker calls a *deliberative platform.* Think of the idea of a platform as like that of a political party, a negotiated consensus consisting of a set of beliefs and principles that guide actions and that, in turn, become the things for which the party stands and is held responsible. It is this sense of reflective responsibility, the degree of matching between the planning as it was recorded and the implementation outcomes, that is unusual. In effect, it functions as a built-in self-evaluation where the scripted proceedings provide a record with which to compare the decisions in the deliberative process with the results of the curriculum implementation itself. It is also a corrective process that wants to find solutions or make adjustments to the process, not create or assign blame.

Freire's Liberation Model

The preceding models share two common qualities: they offer practical applications for doing curriculum work, and their formulation emerged from a research experience. As a group, they are free of preemptive embedded bias, prejudice, or politics that might raise questions about their use. That is not the case with Paulo Freire's work, which was born in the political struggles of oppressed peoples in Brazil. Freire's model centers on creating the structures of thought to empower the oppressed to understand themselves and their circumstances and create their own self, social, and cultural knowledge so they

can emerge into a world of their own making and control. The centering idea is that freedom of self-determination is not the end but the means. Freire articulated this idea as a theory of emancipation or liberation. In his book *Pedagogy of the Oppressed* (1970), he explained this as a dialogue about emancipation through a process of developing critical consciousness. Based on his work with the poor and oppressed, he developed teams who worked in common with people at the local level. The process has an anthropological feel to it; the habits and ideas and the social, cultural, and work activities are studied and used as the data from which themes are developed to use in the dialogic interplay of locals and the assisting team. This process continues through the creation and implementation of a curriculum of the people that becomes the path to self-awareness and empowerment. It is a distinctive curriculum of the people and for the people created for special schooling in a unique context. Although Freire's work is politically controversial, it has demonstrated viability as a process. It is an example of a model based on a theory emerging from practice rather than a model emerging from practice based on a research experience.

Bruner's Spiral Curriculum

The last example for discussion is based on the ideas of Jerome Bruner. In the 1960s aftermath of Russia's successful Sputnik launch, the U.S. federal government developed a policy designed to close the gap in science-mathematics training that had purportedly resulted in our failure to meet the Soviet challenge. The ideas incorporated into various training and curriculum development activities were elegant and practical. There are two basic elements. First, from the perspective of learning psychology, content to be learned could be presented in such a way that any learner could learn it or, in different words, organized in an intellectually honest way, *intellectually* referring to the child's way of thinking. The second aspect has to do with how knowledge is itself organized. Simply summarized, his idea was that any body of distinct knowledge, a discipline, for example, had a structure, and that structure could be patterned (think scope and sequence) to fit the learner. The key to organizing the curriculum based on Bruner's ideas was the concept of the *spiral curriculum.* The curriculum would flow from simple to complex, concrete to abstract, and from year to year as schooling progressed**.** This plan for designing and developing curriculum is arguably the most influential model of its kind. The key is how it influenced the way textbooks were written and presented by publishers. Text selection was no longer a text for a course at a grade level; instead, curriculum workers selected a publisher's text series because it fit a specific scope and sequence spiral and could not be disrupted, like the series of books in learning to read. Its application in curriculum development was widespread. The new math, perhaps the most well known, was followed by similar ventures in physics, other sciences, and the social studies.

PERSPECTIVE INTO PRACTICE: Curriculum Models in a Language Arts Lesson		
Model	*Elementary Classroom*	*Secondary Classroom*
Bobbitt: Determine needs, stipulate objectives, and build experiences.	Students select a poem, story, newspaper article, or online article of choice representing personal interest. They then choose other imagery (e.g., picture, other sources) from various classroom or online resources that represent words used in the selected poem and create a collage-as-meaning effect.	Using library or online resources, students select two stories/poems in literature or a mix to illustrate a literary theme, then create a collage of media that represents the critical ideas/words/phrases in the literature selected and expands or extends the meanings the author intended.
Tyler/Taba: Determine purposes of schooling, develop a scope and sequence, and evaluate.	Given four poems, students select one and briefly state why that choice and not the others. They then rank order the four poems and give reasons for the placement of each in the rank order. In pairs, students compare rank ordering and reasons. The class develops the sets of rank order with rationales from the pairings data, then combines sets that are common into a new order based on categories of interest/personal choice. The last task is to build generalizations about choices/interests and consensus building in judging poetry.	Based on a study of thematic constructions in poetry, students use the library/Internet to identify poetry they want to read. Each selects one poem representing a theme and provides a rationale for that selection. In groups, they agree on some set of criteria and organize selections accordingly. They re-form as a class and again arrange a common set of criteria with a rationale for arranging a composite of all selections. Using the developed criteria, they identify a second set of poems and apply the criteria to identify the problems in making judgments about poetry and thematic construction common in literature.
Walker: Deliberate on beliefs and values, develop curriculum, and compare.	Students engage in teacher-led collaboration-cooperation teaching in a language arts class. Using stories selected from a book of readings, the students in groups decide what factors (ideas, likes, dislikes, etc.) they would use to re-create the selected readings into a	Ground rules for group work are reviewed, and student groups then identify, adjust, or create new rules as discussion proceeds in evaluating two selected poems. Each group identifies values/beliefs they find in the poems and uses the poems as evidence. They then produce

	book of reading. Each group maintains a log of the proceedings so the deliberations have a record. At the end, the class discusses each group of ideas and the ways to identify what role personal intent and belief played in the reading consensus built in the assignment.	a set of observations to define and use in creating a set of criteria to apply to other poetry.
Freire: Develop curriculum for self-awareness and empowerment of the learner.	Students are assigned a selected reading and make a list of words they consider important to the message of the story. Students pair off and decide how to consolidate/organize their lists. Students discuss experiences in negotiating the list in order to attain agreement on the array of words and consider other options for discussion.	The proposed literature course reading list is given to students to review and individually reorder according to personal interests. In pairs, they discuss-compare, note similarities and differences, create a plan or scheme of organization acceptable to both, and arrange a new list of readings. Each student keeps a notebook recording his or her observations of the interactions as a discussion record. Using composite reading lists and notebooks, the class develops a composite set of readings and a set of rules that they infer from the notebooks about the discourse. This will be used to guide future discussions and modified as the class and course proceed.
Bruner: Design curriculum from simple to complex, concrete to abstract, based on the way people learn.	Students are reading two assigned books. As they read, they identify and list words/ideas they think are important to the story, then individually rank order their importance. Periodically, the teacher collects the lists and a student team consolidates them into a master list rank ordered from simple to concrete kinds of word/ideas to those that are abstract/complex. This will be modified each time. After doing this with both books, the class	An American literature class is reading and discussing a selection of books by Mark Twain and Nathaniel Hawthorne. Individually, students identify key ideas/themes/words for the particular author/book they are reading and provide evidence keyed to the book. Students reading similar books form a team to periodically meet and discuss ideas/themes/words and how these interrelate to build the story. Using that discussion, they then build a story framework of

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	compares both ordered master lists and compares words/ideas in relation to how words or ideas build in complexity from start to finish in the stories.	ideas/themes/words around two tasks: (a) Identify how those would be ordered and interrelated from simple ideas/themes/words to complex, giving concrete to abstract examples from the book; and (b) suggest what preparatory knowledge, or ways of thinking, a reader would need prior to reading the particular book. Based on that data, the class builds a composite characterization of the ideas/ themes of each author and rank orders the books as a suggested reading path for an interested reader.

CURRICULUM CRITIQUE

The critique is another useful curriculum tool. Each critique is a written, scholarly perspective on some curriculum matter. They are not, in a political or social sense, pro forma criticisms of something. The main purpose is to invite conversation and further consideration about what is presented for discussion. Critiques have various uses and take different forms depending on the discipline. In the arts, music, drama, and literature, for example, the critique or formal criticism is an important form of scholarly activity. Usually the writer identifies an issue, problem, or topic and develops a framework in which to discuss it. This usually includes situating the matter within the purview of other discipline practitioners by stating the perspective being used or presented; identifying particulars, conditions, and criteria or qualities about the topic, problem, or issue; or presenting the pluses and minuses about it. The critique is often a comparative analysis. In curriculum, critiques often are in the style of a written, reasoned appraisal of some aspect of the state of the discipline, a proposal, trend, tradition, theory, or model, for example. Critiques as academic exercises should not be confused with criticism. The former sets up some criteria used as the points of discussion, a focused, restrained analysis or comparative. The criteria are formally set forth as one might establish propositions in support of an argument or position taken. Criticism is often a disguised polemic, an attack that does not necessarily require such declared formalities or attempt to set itself up as a scholarly discussion; criticism does not have to be grounded, as does the critique. Critiques are useful because they often point out a corrective to or a caution about something that is widely accepted and used in

curriculum work. A number of critiques have led to significant alterations in curriculum thinking and practice.

Issues of Theory Versus Practice

While curriculum work grows and changes both as academic and as school practice, there continues to be a tug of war between those who advocate for curriculum theory by academic scholars and those who consider that curriculum work should be practice and school based. The first set of critiques by Joseph Schwab, William Pinar, and William Wraga address the theory-practice issue.

Schwab

In a series of publications in the early 1970s, Joseph Schwab offered a critique of curriculum work. As he saw it, curriculum as a field of study and work was ailing, and the problem was one of an obsolete work focus. Two factors had produced this state of affairs. First was the fixation on curriculum theory, a legacy of theory building by educational progressives in the earlier part of the 20th century. Second was the hegemonic role of university-based academics. The result was the ignoring of curriculum practice as practical work carried out in schools. As you learned in Chapter 4, Schwab and others described the practical as dealing with four *commonplaces,* the *learners* or students, the *teachers,* the *subject matter* (the curriculum commonplace as what was to be taught), and the *milieu.* The corrective, as he saw it, was to return curriculum to the study of practice and involve practitioners, not just academics. Curriculum work, as he discussed in an article in *School Review* (1973), should be grounded in the real world of schooling, not in esoteric discussions about curriculum theory among academics. Schwab's commonplaces of practice were the criteria for appraising the state of curriculum and for setting forth the remedy. The upshot of Schwab's work was to open up the discussion about the academic-school relationships and the nature of practice and create an introspective about what was the appropriate work for curriculum professionals.

Pinar

If Joseph Schwab's critique about curriculum was a call for the practical in curriculum work, William Pinar's (1975) critique of curriculum was one for reconceptualizing curriculum theory. The thrust of Pinar's view is that theorizing was dominated by one mode of thought, the social behaviorist school, and was in a condition of conceptual imperialism. His critique of theory is important because it opened theorizing to other perspectives. As a focus on just theory work, it was liberating to academics but it does not seem to have affected the practical problems of curriculum that Schwab addressed. The reconceptualist resurrection of theory work has liberated theory in many directions,

particularly among those who lay claim to the postmodernist perspective. In *Understanding Curriculum* (2002) and *What is Curriculum Theory?* (2004), his most recent discussion, Pinar and others present curriculum as historical and contemporary discourse. In their ordering of things, curriculum is understood as various forms of text, a sampling of which include curriculum as aesthetic text, theological text, poststructuralist text, deconstructed text, postmodern text, and political text. The main criticism of the Pinarian formulations echo Schwab's concern that it is not practice focused and fails to address the actual work of curriculum in schools (Wright, 2000; Wraga & Hlebowitsh, 2003).

Wraga

Conversations in disciplines are dialogic, an often-extended exchange of point and counterpoint. The critical issue of curricular relevance, its practicality, is one of those extended conversations. The main positions, represented by Joseph Schwab and William Pinar, have been already noted. William Wraga has expressed a third position on the practice-theory issue. In a series of articles (1998, 1999, 2002), he articulated a perspective that appears to reconcile theory and practice. The essential element in Wraga's perspective is reflected in his statement that "curriculum practice should inform curriculum theory—that the latter should be tested by the former" (2002, p. 17, referencing 1999, p. 11). This neatly encapsulates the problem in the practice-theory debate that has been primarily an either/or choice rather than a third, confluent, or middle way. Since the Wraga-Pinar exchange has prompted other comments, it remains to be seen if this third way will enjoy a serious discussion. There are questions such as how to design such a curriculum inquiry to explore how practice should inform theory rather than the reverse. Perhaps a dialogue among practitioner scholars and teachers would build a community of discourse. After all, if it doesn't get to that stage of discussion, the issue is still back in the same moribund state that Schwab described. Wraga's critique also highlights the lack of a standing practice-theory inquiry tradition, a long-standing lament in this discussion, a condition attributable to the historical dominance of theory rather than research and practice in curriculum inquiry.

Issues of Values, Culture, and Power

In the curriculum literature over the last three decades, a second issue has centered on values, culture, and power in particular institutions and processes such as schools and schooling. The institutional world is large, and the initial thrust was aimed at political institutions and how they suppress the natural empowerment of people and empower elites (Breisach, 2003; Wink, 2000). There is, in all instances of curriculum critique, some discussion of relationships about values, how they are determined and the roles they play, a cultural and multicultural dominance, and the exercise of institution power.

Kliebard

Herbert Kliebard's (1970) critique of the Tyler Rationale has a different, narrower focus. Tyler's Rationale, discussed previously, provides a series of questions to guide thinking about curriculum matters. In contrast to Schwab's critique of the whole field of curriculum work, Kliebard's critique is focused only on Tyler's model. His key point is that any theory, model, or other tool used in curriculum work is not value neutral; nor does its use necessarily lead to value-free results. He pointed out several concerns about embedded values. First was the matter of a person's own values in choosing to use Tyler's model. There should also be a consideration of the values held by others involved in the process. Third, in addition to those value considerations, there is the addition of a value inherent in the very choice to use Tyler rather than some other model, in that some value positions are being raised over others. The emphasis on values is important because it opened up an extended discussion about value orientations in all aspects of curriculum. Among curriculum workers, its legacy is to be introspective about personal values and reflective about assumed and embedded values as part of one's perspective and practice in curriculum work. Because Tyler's Rationale was widely used at various levels and places of curriculum work, this admonition to be careful about values was important for all users.

Ong

In contrast to issues about the direction of curriculum or particular theories or models, some critiques focus on the social and cultural dimensions of curriculum, the milieu of commonplaces. Usually, this directs one to consider a different perspective, to think outside the box, to step outside what is being looked at, and in a detached way, to see it differently. Walter Ong (1971, 1982) asks one to do that by pointing to the dominant mode of expression in a culture and how it affects curriculum. Oral traditions mean a curriculum with the study of forensics, debate, and oratory. In a print-oriented culture, the concentration is on language, spelling, writing, and composition. As humans progress into the age of information and visual technologies, new curriculum requirements will emerge. Computers and the Internet are new media of expression. Print knowledge is still important but, with new media, different curriculum needs may emerge. Oral and print cultures necessitate creating different ways to think in the particular tradition. It is probable that new ways of thinking are emerging.

Apple

Another useful critique, by Michael Apple (1986), focused on the subtle role of text-books in schooling. Texts are commercially produced and subject to subtle political pressures about what content to include. One example is how the choice of presenting ideas such as evolutionary theory, creation theory, and intelligent design in science texts

shape thought in one direction and not in another. This exemplifies the problems of compromise and presenting all sides in a discussion in a democracy, which Apple discusses in *Ideology and Curriculum* (1979) and *Cultural Politics and Education* (1996). In Apple's writings, matters of historical inclusiveness (whose side of history is being told) and settings of power that influence the control of curriculum, schools, and schooling are important themes. Apple's point is that curriculum has the subtle power to indoctrinate by virtue of what is put into texts and, perhaps more important, what is excluded or left out. School personnel, as Apple notes, can be powerful influences. The public schoolteacher who leads the class in prayer behind closed doors in full knowledge that this is illegal is exerting power and influence as well as assuming the unwarranted role of parent or guardian.

Summary and Conclusions

Doing curriculum work necessitates understanding the kinds of tools curriculum workers use. Curriculum tools have evolved as the discipline of curriculum has grown. The set of tools includes theory, models, and critiques. Theory began in the initial formation of curriculum with the early educational progressives who were looking for ways to change the curriculum. Curriculum theory is not like the scientific or other varieties of theory. It has particular characteristics and a set of criteria with which to judge theory work in curriculum. Models are available for planning, development, and just thinking about curriculum work. Curriculum critiques are valuable discussions about curriculum ideas, theory use, models, and work among all curriculum workers. These are basics in the curriculum knowledge base, and knowing about these tools is an important part in understanding curriculum practice.

Critical Perspective

1. Should sets of criteria for judging theory be weighted or valued equally? What considerations should enter into deciding what weights or values will apply? What is the basis for weighting?

2. Using the criteria in Figures 6.1 or 6.2, try applying them to the Phenix and Adler examples. How many of the criteria apply in each instance? Could you argue that one or the other or both are curriculum theories?

3. What do professionals in schools consider to be curriculum theory and how do they define or describe curriculum theory? Interview several teachers and ask

them what definition, criteria, or characteristics they attach to curriculum theory and if they can identify one that fits into their frame of reference.

4. Using the characteristics given for the critique, go to the Internet or library and select a curriculum-related article, apply the characteristics, and determine if the article qualifies as a critique.

5. The term *theory* is used quite freely in education; there is learning theory, instructional theory, and so forth, and some topics or ideas, like multiple intelligences and learning styles, are sometimes referred to as theories. How do those conceptions of theory differ from the one developed in this text for curriculum theory?

Resources for Curriculum Study

1. The term *curriculum theory* has been applied quite freely in curriculum. Using the Internet, library, or references and Recommended Readings sections in this book, look for books or articles by these curriculum scholars: Ted Aoki, Michael Apple, Ivor Goodson, Maxine Greene, A. V. Kelly, William Pinar, or Thomas Popkewitz.

2. For a more detailed discussion of the deliberation idea applied to curriculum, see Chapter 6 in Decker Walker's *Fundamentals of Curriculum* (1990).

3. Aspects of the Eight-Year Study, its purposes, methods, outcomes, and their importance, are discussed in various chapters of the *Handbook of Research on Curriculum* (Jackson, 1992). Wilford Aikin's *The Story of the Eight-Year Study* (1942) is the usual primary source. One recent revisit to the Eight-Year Study is the Kridel and Bullough (2002) article "Conceptions and Misperceptions of the Eight-Year Study."

4. In curriculum, most of the important literature not related to theory or curriculum development has been produced since the end of World War II. Reprising from comments made in this same section at the end of Chapter 1, a selection of the more enduringly useful would include arguably the single best reference in the literature, by Schubert, Schubert, Thomas, and Carroll (2002), *Curriculum Books: The First Hundred Years*, the synoptic textbooks published in curriculum. No list would be complete without the *Handbook on Curriculum Research,* edited by Phillip Jackson (1992), which is a portal to just about any subject in curriculum, the various important scholars who contributed to it, and a reflection of the structural aspects discussed in this chapter. A third book, *Understanding Curriculum* (Pinar, Reynolds, Slattery, & Taubman, 2002), is a postmodernist

view of curriculum that is really a comprehensive discussion of curriculum theory. It also covers a wealth of curriculum knowledge.

5. Among professional associations dedicated to curriculum matters, publications of the National Society for the Study of Education stand out. The yearbooks in particular reflect the thinking and perspectives developed about curriculum, schools, and schooling over a period of 100 years. One very significant yearbook about curriculum is the Twenty-Sixth Yearbook of the National Society for Studies in Education, under the chairmanship of Harold O. Rugg, published in two volumes, *Curriculum Making: Past and Present* and *The Foundation of Curriculum Making* (Rugg, 1927a, 1927b). It is a compilation of writings by educational progressives that marks the formation of curriculum as a new area of interest and scholarly work.

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