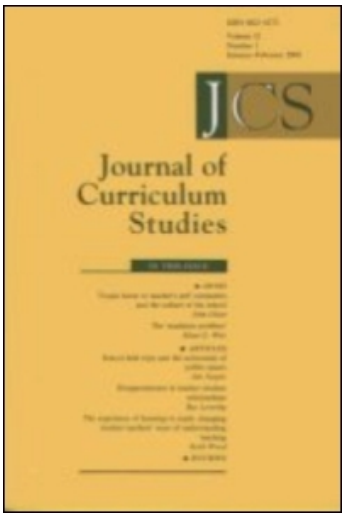

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The questions of curriculum

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The questions of curriculum

J. T. DILLON

What are the basic things that compose curriculum, and what are the questions that may be posed about these things? Joseph Schwab's conception of curriculum is used to introduce a scheme of questions concerning the nature, elements, and practice of curriculum. Formulations of questions by other curriculum theorists are reviewed and analysed in light of this scheme, and the various uses of such questions are described. How far the questions prove to enhance thinking and acting in the domain of curriculum is the ultimate criterion of the usefulness of the questions. The answer to this final test question, as to the others, is to be found in the circumstances of practice.

Keywords: curriculum development; curriculum elements; curriculum problems; curriculum questions; educational theory

In one of his penultimate pronouncements, the curriculum theorist Schwab (1983) stipulated the following conception of curriculum, marvellously expressed in a single sentence of careful phrasing:

> Curriculum is what is successfully conveyed to differing degrees to different students, by committed teachers using appropriate materials and actions, of legitimated bodies of knowledge, skill, taste, and propensity to act and react, which are chosen for instruction after serious reflection and communal decision by representatives of those involved in the teaching of a specified group of students who are known to the decision makers. (p. 240)

To what question, it may be asked, was Schwab giving an answer? That would be the great question of curriculum; and the parts of his answer—even the adjectives that modify them—would respond to the basic or essential questions which together constitute the domain of curriculum. (Schwab's questions are analysed under a subsequent heading herein.)

Schwab was not prolix; he knew what he was talking about and what he was saying about it. He wrote deliberately in terms of the educational

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commonplaces of teacher, student, subject-matter, and milieu. So it may be asked more pointedly of his exemplary answer:

- What are the basic things involved in curriculum? and
- What are the basic questions to ask about these things?

That would give the questions of curriculum.

Three orders of questions

Questions of curriculum may be classified into three broad kinds, or orders, concerning the nature, the elements, and the practice of curriculum. These are summarized in table 1.

(1) Nature of curriculum

Questions of the nature of curriculum ask after its essence or substance, (1a) *What is it?*, and, after its properties or character, (1b) *What is it like?* Answers to the first are definitions, conceptions, theories, and similar notional entities. For instance, the question that figures first on a list of basic curriculum questions is, *How is curriculum defined?* (Ornstein 1987: 16). Answers to the second type of question are ascriptions such as practical and moral, or technical and procedural, qualities typically adduced by comparison with human enterprises thought similar to curriculum. For example, 'The practical: a language for curriculum' (Schwab 1969) is an archetypical reference.

The answers that have been given to these questions in the curriculum literature are well known and needless to review. Taken as an ensemble the definitions and conceptions of curriculum are known to be incoherent, and by individual contrast to be divergent when not contradictory. It has become obligatory, as in textbooks, to display a dozen or more answers in all their diversity, to almost no purpose or effect other than to dispirit the reader.

Table 1. The questions of curriculum.

(1) Nature of curriculum—*What is it?*
  (1a) Essence or substance—*What, at bottom, is it?*
  (1b) Properties or character—*What is it like?*
(2) Elements of curriculum—*What are the things that compose it?*
  (2a) Teacher—*Who?*
  (2b) Student—*Whom?*
  (2c) Subject—*What?*
  (2d) Milieu—*Where and when?*
  (2e) Aim—*Why? To what end?*
  (2f) Activity—*How?*
  (2g) Result—*What comes of it? Who learns what?*
(3) Practice of curriculum—*How to think and act it?*
  (3a) Action—*What to do?*
  (3b) Thought—*How to think?*

The fundamental reason for the felt futility of definition—or, as some would have it, the celebrated contestedness of the curriculum field—lies in some defect of the question in the first place and the presumptions in asking it. Briefly, it results from logical analysis that curriculum may not be a kind of entity that has an essence such as might be discovered and isolated if looked for, and that could then be captured in an agreeable formula for the asking. Many things in the world other than curriculum are like that, things that no definition can define—*question*, in fact, being among them—yet people continue asking, such that the varying definitions continue to exfoliate, pleasing no one and informing nothing.

Still the question seems essential to resolve. However, definitions might not prove to be the kind of answer that would satisfy educators, because their interests in asking *What-is-it?* questions likely attach to another kind of question, regarding the elements of curriculum. What educators want to know is something like this:

- What are the things that make up curriculum? and
- What are we supposed to do about these things?

With this as the question, educators stand a better chance of asking, seeking, and finding some agreeable answers.

(2) Elements of curriculum

What are the basic things that must be involved in curriculum, and what are the basic questions about those things? The elements or components of curriculum are the things of which it is constituted or composed. They are of seven kinds, each with a constitutive or categorial question. Together these are the questions of curriculum. They are the things educators have to think and act about in doing curriculum.

Here are the seven questions (2a–g), together with some of the major variants of each question. Each question/category could well be classified into major sub-questions/categories. However, it is rarely fruitful to pursue the particulars much further than that; better to maintain in mind the broader categories and not get lost in the details.

(2a) Teacher—Who?
Who should be the teacher or educator? *Who?* would comprehend all possible questions about the teacher, his or her personality, background, training, qualifications, characteristics, traits, personality, role, and the like—save for actions, which forms a separate category that is shared with other agents, notably students (see category (2f), *Activity*, below).

(2b) Student—Whom?
Who teaches whom? or Who should be taught? Characteristics, dispositions, qualities of student or pupil. What makes a person a student, and what makes a student a learner? How does a student learn? Which things about a student should one take into educational account?

(2c) Subject matter—What?
Characteristics of subject-matter, its nature and content, materials and format include the standard 'What should be taught?', the hoary 'What knowledge is of most worth?', and the enduring 'Who should be taught what?' This kind of question has historically been regarded as the central question of curriculum, but it has always been mistreated as such. In point of fact, the question cannot be proven more central than any other basic question—they are equivalent—nor can it be disconnected from the others. What should be taught to whom for which purpose in which circumstance?

(2d) Milieu—Where and when?
All questions of time/timing and place, circumstance, surrounding conditions, contexts, environments, eras, successively larger circles—classroom, school, community, society—surrounding the curricular activity. This is the most neglected and least understood of the commonplaces, yet equally as powerful a factor to take into necessary account.

(2e) Aim—Why? To what end?
All questions of educational purposes, goals, objectives, aspirations, intents, ends in view, and the like. What is the point of this teacher's teaching this subject to this student in this circumstance? This is a classic question of philosophy of education, often placed first and regarded as foremost; but the placement of this question is indifferent and its importance is equivalent to any other of the seven questions.

(2f) Activity—How?
This question of means, methods, and actions urgently divides into student action and teacher action, with educational primacy given to the student. (It is by the actions of this agent that the intended learning may occur; and because the student's actions are forcibly determined by the actions of the teacher, teacher actions must first be designed in light of the student action to follow.) However, in addition it is a question of complementary action—that is to say, interaction.

- *How should a student act?* What must a student do, be, have, in order to learn that which is set to be learned?—and, therefore, as a consequence:
- *How should a teacher act?* What must a teacher do so that a student can do that which a student must do in order to learn what is set to be learned?—and so, together,
- *How should teacher and student interact?*—over this subject-matter in this circumstance with this aim? How should a teacher teach this subject-matter to this student in this circumstance with this end in view?

(2g) Result—What comes of it? Who learns what?
Something necessarily comes of the interaction of student and teacher over subject-matter in circumstance with this intention; but what?—and how to tell, exactly? When the student will have accomplished the intents of the

curriculum, what will the student look like? How will the accomplished person be seen to act, feel, think, and live (behavioural, affective, cognitive, lifestyle changes)? In general, who is the educated person?

The questions all together

These seven generic or categorial questions—*who*, *whom*, *what*, *where and when*, *why*, *how*, *what results*—comprehend all of the individual questions that can be asked within each category and altogether for the entire domain. For a glimmer of the possibilities:

- by pairing only the first four commonplaces with one another, Schubert (1986: 302–305) fills four large pages with suggested questions;
- by applying against other factors nine curricular elements not unlike those in table 1 (goals, materials, content, learning activities, strategies, evaluation, grouping, time, space), Goodlad's researchers faced 'in excess of 500 potential questions to be answered in order to get a comprehensive picture of a school's curricula' (Goodlad and Associates 1979: 67); and
- by passing 17 aspects of the curriculum field through a few contexts, Johnson (1971: 29) noted that 7000 specialized research questions (interests) emerge for the curriculum student's choosing.

In fact, the possible questions, though not infinite in number, are indenumerably many.

No matter, for within the seven generic questions, any and all of the questions of curriculum can be located or formulated. In principle, the seven questions in table 1 operate equally and simultaneously in constituting any given instance of curriculum, formed of all seven together. The questions can be connected, if awkwardly, in one interrogative sentence to ask: *Who should teach what to whom, and in which circumstances …?*, or *What should be taught for which purpose …?*

For example, consider *the central questions of curriculum* identified by Reid (1999: 1) in the first sentence of his book of essays on curriculum. He runs together five questions, each of which can readily be seen as one of the seven elements:

- Subject: *What should be taught in our schools*;
- Activity: *by what means*;
- Student: *to whom*;
- Milieu: *under what circumstances*; and
- Aim: *and with what end in view?*

No question is proposed for Result, although that question is highlighted by Reid's predecessor, Taylor (1979: ix), as editor of *Journal of Curriculum Studies*, as one of the central questions of curriculum studies. However, more interestingly, Reid formulates no question for the category of Teacher, whereas in an earlier book (Reid 1992) he treats it at chapter length, together with chapters on Student, Subject, Milieu—other commonplaces for which he does formulate a question here. Perhaps Teacher is implied in his

phrasing of Subject-matter, 'What should be *taught* …?' Reid's use of this question-sentence appears to be a device to introduce his book rather than to produce a systematic formulation of questions as major topic. Indeed, he counters with the topical question, 'But what is curriculum?'

The most bounteous of all examples is a breathless sentence from Brann (1989: 14). In a single sentence she formulates the whole question concerning education, packing in not only all of the interrogatives but all of the categories to boot:

> Who should learn what so as to become what and do what, and how and by whom and with whom is it to be taught?—which question comprehends the learner, the object of learning, the transformation worked, the practical purpose, the plan of study, the teacher, and the community of learning.

Here at a stroke are all the basic questions about all the basic things. In terms of the elements in table 1, Brann's successive interrogatives describe the Student, Subject-matter, Aim, Activity, Teacher, and Milieu. Only the final category of Result appears to be missing, but Brann anticipates and immediately appends it: 'Perhaps one should add: With what expectation of success?'.

It should be noted, and might even be objected, that this example does not come from the field of curriculum and does not formulate the question of curriculum. It is a question of education coming from the broad domain of educational practice, not even from the professional or intellectual field of education or educational theory or research. Indeed, Brann herself was originally trained as a classical archaeologist, yet she knows and does everything needful regarding curriculum. And although the field of curriculum surely has particular questions of its own, they all appear to be comprehended in the question of education. Thus, Brann's example may offer the helpful insight that the questions of curriculum—like the curriculum field itself in its entirety—locate within education.

Indeed, the German philosopher of education Brezinka (1997: 11) formulates the question of education in a 'question bundle' that he presents to educational researchers as a task to describe and order its factual contents. Like Brann, he specifies the category of things along with the question about them:

> Who (subject) educates whom (object, addressee), to what end (aim) under what circumstances (situation, framework, conditions, context), how (in what manner or form of educational action), and with what consequences (results, effects, side effects)?

In terms of the similar elements in table 1, these successive interrogatives describe Teacher, Student, Aim, Milieu or circumstance, Activity, and Result. Systematic though he is, Brezinka has forgotten to include the what?—the subject-matter, which he elsewhere renders as 'personality dispositions'.

(3) Practice of curriculum

The seven elements constitute an entity or enterprise called curriculum. Now educators can look at that enterprise, locating themselves with respect

to it, and ask a different order of questions. The fundamental questions to ask concern its practice: *How to think and act?*

(3a) Action—What to do?
Questions of this type concern the deciding and planning of curriculum, the implementing and experiencing of it, the assessment and improvement of it.

For instance, the final part of Schwab's conception describes *deliberation* in answer to the action-question of deciding curriculum. *Curriculum-making* is the final commonplace treated by Reid (1992), also a deliberative theorist, along with Teacher, Student, Subject, Milieu in the pursuit of curriculum.

Generally speaking, questions of action regarding curriculum are what is called *deliberative* questions in that they take the form *What should we do?* In general, their answers take the form of decisions or resolutions to act (Dillon 1994).

(3b) Thought—How to think?
These are questions of curriculum studies, curriculum research and inquiry, curriculum courses and degrees, curriculum theorizing, ideologies, perspectives, and the like. They also importantly include questions of how everyday practitioners of curriculum ought to think as they go about their curricular activities.

An instructive as well as authoritative example comes from Taylor (1979). In the first sentence of his book *New Directions in Curriculum Studies* (p. ix), Taylor sets out to define the field of curriculum studies by three questions, in prescriptive/descriptive form:

- What should be/is taught?
- What should/does that result in?
- What is believed necessary/put in to produce that result?

Now, that definition appears to be a slip, in that these questions constitute curriculum rather than people's thinking about it; and the error is immediately corrected by Taylor's subsequent statement that the field of curriculum studies studies *how these questions are answered*. In fact it is *that* question by which he means to define curriculum studies, and he goes on to specify it in these terms: 'in what kind of language [these questions are answered], by reference to what beliefs and assumptions, in terms of what justifications'. Those indeed are questions of thinking about curriculum, and they can rightly be used to define curriculum studies (but *not* curriculum).

Apart from studies, research, and the like, this question also describes the thought processes of practitioners as they go about their daily work. Practice in this field is not a matter of brute action but of thinking-in-action. So the question is not only a matter of how observers or researchers think about curriculum: it is primarily a matter of how those who practise curriculum *ought* to think as they act.

Perhaps the best characterization of this matter would be:

- What are the questions to bear in mind as we as educators do curriculum? or
- What questions are we answering in action?

The questions in Schwab's conception

Returning to the lead example of Schwab's conception, readers are surprised to discover that his stringently composed sentence actually ranges through all three orders of questions. At the outset he addresses a question of the nature of curriculum, *What is it?*, proposing in answer one of the things that properly answer such a question, a conception:

> *(1) Nature*: *I stipulate the following conception of curriculum: Curriculum is …*

However, Schwab does nothing of the sort, telling readers neither about the essence or substance of curriculum, nor its properties or character. Rather he passes straight on to a question of another kind, a second-order question of the elements of curriculum, specifying what different kinds of things are involved.

> *(2) Elements*

- Result: *what is successfully conveyed to differing degrees*;
- Student: *to different students*;
- Teacher: *by committed teachers*;
- Activity: *using appropriate materials and actions*;
- Subject (1): *of legitimated bodies of knowledge, skill, taste, and propensity to act and react*; and
- Subject (2): *which are chosen for instruction …*

Here that part of the answer breaks off. Schwab has addressed five elements of curriculum, specifying two characteristics for one of them, Subject-matter (that is, legitimated and selected), but he has said nothing about aim or purposes, and nothing about milieu or circumstances—which invariably figures as one of his four commonplaces, along with Teacher, Student, Subject. However, he is done with this whole question, turning to another question of yet a different order regarding the practice of curriculum. *What to do about deciding it?*

> *(3) Practice*

(3a) Action—deciding: after serious reflection and communal decision by representatives of those involved in the teaching of a specified group of students who are known to the decision-makers

Here Schwab introduces his preferred method of deciding curriculum, local group deliberation. It is the only thing that he enters about practice, the first action that is involved (and, as he explains it, a continuous feature of action). It also forms the major topic of the essay that this lead sentence introduces.

We as educators come away from this informal question–answer analysis with a better understanding of Schwab's proposition—or anyone else's—especially for having a finer appreciation of the questions that it entails. We see how his compact sentence not only touches upon different questions but turns through different orders of questions, raising but not answering some, ignoring others, and partially answering the rest. The considerations cited may fairly be used in criticism of Schwab's formulation, but the purpose of noting them here is broader: to help us to identify just those questions that *we* properly answer in our own proposals and practices.

The essential is to get the questions right in the first place. Then we might enact defensible answers to definitive questions, all the while knowing what we are doing.

Formulations of curriculum questions

Although curriculum questions may locate within the broader questions of education, some curriculum theorists have properly formulated the questions particular to curriculum. In addition to the sentence or so versions cited from Reid (1999) and Taylor (1979), three more developed formulations have been proposed over the years. The oldest (Rugg 1927) and the most recent (Ornstein 1987) are rather long lists of questions; the intermediate one (Tyler 1949) is not a list but a more systematic, if less developed, *set* of questions.

Fundamental questions of curriculum (Tyler 1949)

Of the famous 'Tyler Rationale', nothing remains to be said that has not already been repeated more than enough times. I describe here only its character as a formulation of the questions of curriculum.

Tyler's questions are the most well-known of all. They are four, appearing both on the first page of his book (Tyler 1949: 1) and in the chapter titles, with small variations in wording except for the first question.

(1) What educational purposes should the school seek to attain?
(2a) What educational experiences can be provided that are likely to attain these purposes?
(2b) How can learning experiences be selected which are likely to be useful in attaining these objectives?
(3a) How can these educational experiences be effectively organized?
(3b) How can learning experiences be organized for effective instruction?
(4a) How can we determine whether these purposes are being attained?
(4b) How can the effectiveness of learning experiences be evaluated?

These, proposes Tyler, are 'four fundamental questions which must be answered in developing any curriculum and plan of instruction' (p. 1).

The first noticeable feature of this formulation is that it constitutes a set and not a list of questions. It has three schematic characteristics.

- it identifies general elements, or categories, of curriculum about which questions must be asked—and answered (namely, purposes, experiences, organization, evaluation);
- it formulates the general question about each necessary element; and
- it orders the categories and questions.

The four questions are arranged in dynamic succession—not merely listed one after another—such that one leads into the other. The first question asks about the first feature and the final question about the final feature. The first question asks not about any aspect of curriculum but about the first element for thought and action (as conceived by this scheme), namely educational purposes; and the final question asks about the final element for thought and action, namely evaluation. In between are questions about the learning experiences that might be useful in achieving the previous question of purpose, and the effective organization to give to these experiences. The final question relates these two questions to the first: how the experiences-as-organized prove to attain the purposes for the attainment of which they had been selected.

Upon the final question, the first question of purposes arises once again and the set of questions unfolds for subsequent thought and action. This is a theoretical trait, not necessarily a pragmatic usage. For it is not necessary to begin empirically with the first question. In principle, the dynamic succession of questions will operate once the scheme has been entered at any point, that is to say, on any question that presses for thought and action in actual circumstance of practice. Each question relates to a previous and subsequent one.

These theoretical features of Tyler's set of questions as a scheme reappear in complementary light when his four questions are classified by the scheme of questions in table 1:

- Aims: Tyler's Q1 of purposes;
- Activities: Tyler's Q2 of experiences and Q3 of organization; and
- Results: Tyler's Q4 of evaluation.

There again is a scheme of practice, in one of the classic trilogies, formulating (generically) all the fundamentals and ordering them in dynamic succession.

Yet it may be wondered whether Tyler's formulation, while tight and complete, might not perhaps be too general, with too few questions about too few elements. For instance, no question is formulated for any of the four 'commonplaces' of Teacher, Student, Subject, Milieu. These elements are by no means absent from Tyler's consideration, for he discusses them at some length as 'sources' of curriculum (learner, society, subject-matter); they do not, however, figure in his scheme either as topic or question.

With all of that, in the many years of the six decades since Tyler's scheme, not one of the thousands of curriculum professors, graduate students, directors, researchers, or theorists has published an improved scheme of questions. That fact is not cited in praise of Tyler. It is faced in wonderment over the state of the curriculum field.

Fundamental/basic questions of curriculum (Rugg 1927, Ornstein 1987)

These two lists of questions are presented together in table 2, ordered according to the element of curriculum that the questions ask about, while retaining the original numbering of the questions. This presentation allows interested readers to make fine appreciations of the various questions, and the historical differences affecting their formulation. Here I note more general considerations regarding their character as questions of curriculum.

All 18 of Rugg's questions and all 15 of Ornstein's locate nicely within the scheme of questions in table 1. That is a pleasant finding, both about the fundamental character of the questions and the comprehensiveness of the scheme that orders them. Both lists also display a particular, yet not exaggerated, concern with questions of subject-matter, which form one-third of the questions on each list—as might be expected of a list of *curriculum* questions. However, they also count one or more questions about each of the other six elements, which is something to note about lists of only 15–18 questions divided into as many as seven categories. These, then, appear to be solid questions of curriculum, and the lists appear to be solid collections of basic or fundamental questions.

Rugg's (1927) list is an authoritative and deliberative formulation. It was produced by 8–12 impressive figures, who constituted a committee on curriculum of the National Society for the Study of Education, under Harold Rugg's chairmanship. They included Rugg and William H. Kilpatrick (plus others) from Teachers College, Columbia University, and Franklin Bobbitt, W. W. Charters, George S. Counts, and Charles H. Judd from the University of Chicago, along with other men from four other universities. These established professors first drafted a list of questions, next discussed it at length in a roundtable, and then produced a revised and agreed list. Their express desire was to identify the fundamental questions that underlay and describe the opposition between the subject-centred and activities curriculum, while also capturing the essentials of the issue—in hopes of provoking '*hard thinking* about the issues and problems of curriculum-construction' (Rugg 1927: 8).

The tensions among the question-makers—e.g. traditional vs progressive, child- vs subject-centred—can poignantly be seen in the questions about subject-matter and aim, but they clearly inform the other questions as well.

Ornstein (1987) referred to this historic list in offering his own list 60 years later. He registered surprise that few curricularists of his time were dealing with fundamental questions; asking the right questions is crucial to discussing curriculum theory and practice. He presents his own list of 15 basic, fundamental questions but does no more with them (his article ends there).

One of the most striking aspects of Ornstein's questions is that they include, almost bodily, Tyler's set of four questions from 1949:

- Tyler's first question, about purposes, is reflected in two of Ornstein's about aims/goals/objectives and needs (Q11 and Q12 in table 2).

Table 2. Lists of questions of curriculum, by elements asked about.

	Eighteen fundamental questions on curriculum-making (Rugg 1927)	Fifteen basic curriculum questions (Ornstein 1987)
Teacher	(None)	10a. What are the roles and responsibilities of the teacher and student in organizing curriculum?
Student	12. To what degree should the curriculum provide for individual differences? 15. What, if any, use shall be made of the spontaneous interests of children?	10a. What are the roles and responsibilities of the teacher and the student in organizing curriculum?
Subject-matter	5. How shall the content of the curriculum be conceived and stated? 6. What is the place and function of subject matter in the educative process? 7. What portion of education should be classified as 'general' and what portion as 'specialized', 'vocational', or purely 'optional'? To what extent is general education to run parallel with vocational education and to what extent is the latter to follow on the completion of the former? 9. To what extent is the 'organization' of the subject matter a matter of pupils' thinking and construction of, or planning by, the professional curriculum-maker as a result of experimentation? 13. To what degree is the concept of 'minimal essentials' to be used in curriculum-making? 14. What should be the form of organization of the curriculum? Shall it be one of the following or will you adopt others?—[a, b, c, d, e]	2. What philosophies and theories are we communicating, intentionally or not, in our curriculum? 5. What are the domains of curriculum knowledge? What types of curriculum knowledge are essential? 6. What are the essential parts of a curriculum? 9. How is curriculum best organized? 13. What subject matter or content is most worthwhile? What are the best forms of content? How do we organize it?
Milieu	3. Are the curriculum-makers of the schools obliged to formulate a point of view concerning the merits or deficiencies of American civilization? 11. To what extent should traits be learned in their 'natural' setting (i.e. in a 'life-situation')? 18. Administrative questions of curriculum-making: (a) For what time units shall the curriculum be organized? (b) For what geographic units shall the curriculum be made? (c) Shall a curriculum be made especially for rural schools? (d) What is the optimal form in which to publish the course of study?	3. What social and political forces influence curriculum? Which ones are most pertinent? Which constrain, or impose limitations? 7. Why do changes in curriculum take place? How does change affect the curriculum?

Table 2. ***(Continued)***.

	Eighteen fundamental questions on curriculum-making (Rugg 1927)	Fifteen basic curriculum questions (Ornstein 1987)
Aim	1. What period of life does schooling primarily contemplate as its end? [viz. childhood or adulthood] 2. How can the curriculum prepare for effective participation in adult life? 4. Should the school be regarded as a conscious agency for social improvement? [to fit children to the current social order or to rise above it; children to be adjusted to current society or be impelled to modify it?]	11. What are our aims and goals? How do we translate them into objectives? 12. How do we define our educational needs? Whose needs? How do we prioritize these needs?
Activity	16. For the determination of what types of material (activities, reading, discussion problems and topics, group projects, etc.) should the curriculum-maker analyse the activities in which adults actually engage? [for skills, facts; group activities; problems of contemporary life?] 17. How far shall methods of learning be standardized?	3. How does learning take place? What learning activities are most suitable for meeting the needs of our learners? 4. How can these activities best be organized?
Result	10. From the point of view of the educator, when has 'learning' taken place?	14. How do we measure or verify what we are trying to achieve? Who is accountable, for what and to whom?
Extra-order		
I. Nature	(none)	1. How is curriculum defined?
III. Practice	8. Is the curriculum to be made in advance?	8. What are the roles and responsibilities of the curriculum specialist? 15. What is the appropriate relationship between curriculum and instruction, curriculum and supervision, curriculum and evaluation?

- Tyler's next two questions about learning experiences and their organization are formulated in one of Ornstein's about learning activities and their organization (Q4) and another about organization (Q9).
- Tyler's fourth and last question about evaluation (*How can we determine whether these purposes are being attained?*) is reflected in Ornstein's next-last question: *How do we measure or verify what we are trying to achieve?* (Q14).

These questions about aims, activities, and results may also be found in Rugg's list from 1927, but in a more general, open, and less technical formulation, less specific and less precise.

Nothing asynchronic is being suggested here. It is plain that Tyler's questions were published 20 years later than Rugg's. Yet are not each of the two theorists to be taken as formulating fundamental, basic, essential questions of curriculum? Perhaps any observed differences might be due to different emphases of concern and differences in contemporary uses of language—rather than to any difference in identifying fundamentals? One of Rugg's questions about subject-matter, for instance, could hardly be more fundamental, either in topic or formulation: '*What is the place and function of subject-matter in the educative process?*' Or one of his questions about Student, which in addition to being fundamental gives off a contemporary, or enduring, ring: '*To what degree should the curriculum provide for individual differences?*' And Tyler's questions about fundamentals of organization and result are also echoed in Rugg's questions:

- *What should be the form of organization of the curriculum?*
- *From the point of view of the educator, when has 'learning' taken place?*

The same is the case with Ornstein. Incorporating Tyler's questions or the categories of aims/activities/results is not the whole story: Ornstein goes further, formulating more questions about more things. As noted, a third of his questions ask about subject-matter (see subject heading in table 2). He also asks about the roles and responsibilities of teacher and student (Q10), the social and political influences on curriculum (Q3), and additional questions about the nature and practice of curriculum (Q1, 8, 15). While certainly not ignored by Tyler, these questions are yet not formulated by him or fitted into a scheme.

Still, unlike Tyler's set of questions arranged in dynamic succession, neither Ornstein's nor Rugg's list is ordered. The numbering appears without importance—any numeral would do for any question. That is characteristic of a list by contrast to a set, a classification, a scheme. Were the lists to be given an order, an arrangement, a schematic according to one principle or another, educators would be able to understand and appreciate it better. The listing of their questions by curriculum categories in table 2 imposes an order, and thus perhaps a significance not to be discovered in the original. A scheme for questions is more useful than a list.

Neither list, moreover, sounds much like the questions cited from the curriculum theorists Reid (1999) and Taylor (1979)—with their pressing categorical questions such as *What should be taught in our schools*? Nor do the lists sound anything like the omnibus questions cited from the educational

theorists Brann (1989) and Brezinka (1997), with their run-downs of all the who's and what's in all the categories of education. Yet these latter four sets of questions surely call for some of the developed formulation that is to be found in the earlier two lists. Finally, neither of the two lists, older or more recent, strikes one today as particularly interesting, stimulating, or engaging of thought and action.

The conclusion would be: Can we not make *a better list* of curriculum questions?; and, Could we now (please) make something *better than a list* of questions?

Uses of the questions

A good scheme of questions has surprisingly good uses. And in fact we need several schemes, differing among themselves in the way that they comprehend the field of curriculum. For no one scheme of itself can exhaust the domain. Schemes *select* among ways of representing basic phenomena, the characteristics used to distinguish them, the purposes in view, the principles of arrangement to be followed, the judgements and conceptions being expressed (Dillon 1984).

Despite their varying questions, the theorists who figure herein are of the same and exactly right frame of mind in supposing that questions are of some peculiar significance to the field of curriculum (and more broadly, education). We propose that: *curriculum is constituted of essential questions to which our practices represent particularized answers.* To know what we are doing, then, is to know the questions that we are answering in action; and to do curriculum rightly, let us say that we may permissibly give certain different yet possibly right answers yet *we must ask the same right questions* to begin with.

Here is where good schemes of questions can be put to good uses: principally to understand and to construct curriculum, and generally to practise it.

To understand curriculum

It is easy to see how a scheme of questions helps us as educators merely *to think about curriculum*, by putting in front of us the things that we must not neglect to consider in some way, together with the questions that we should explore about these things. Or, would we think only about some one single thing, the scheme offers a context or framework within which to situate it so that we will not misconstrue its place or importance, for example, or forget to treat its relations with other important things.

A scheme also helps us *to analyse instances of curriculum*, giving us a systematic way to grasp curriculum proposals and programmes, speeches and directives, theories and positions, contemporary controversies, and the like. When these make propositions and assertions, which questions are they answering or emphasizing, and which not? What answers are they giving,

and how do these sit with other basic question–answers that they adduce or omit?

In curriculum research and evaluation, the questions can be used *to guide or to situate an individual study as well as to frame a review of a body of studies*. The knowledge that comes from a study or from a body of research would then be treated as a set of answers or silences to a systematic set of questions.

To construct curriculum

In ready complement to these analytical uses, a scheme of questions can also be used *to compose* curriculum proposals and programmes, *to build* theories, *to design* survey courses, and *to write* introductory textbooks on curriculum. In each case, all we as educators have to do is make sure we address all the essential questions, thereby producing a complete treatment made up of interrelated answers.

To practise curriculum

In general, the scheme of questions can be used *to practise curriculum*, such as planning, implementing, evaluating it. Such usage by everyday practitioners, as in the schools, is a fluid and highly sophisticated form of practice, not as systematic and leisurely and notional as the more analytical and constructionist usages just noted.

A teacher, for example, might bear the basic questions in mind in the very moment and circumstance of practice, animating pedagogical action as an answering to the pressed questioning. For this purpose a scheme must be handy to be good. A nicely articulated scheme of 10–20 questions will not do, for no one could bear all of them in mind in the moment of teaching; neither will a compact one of 2–3 questions do any good, for more things than that are going on and have to be taken into account while teaching. Thus, a tiny scheme circumscribes practice while a capacious one dissipates it.

Unfortunately, no one can know beforehand just how to go about constructing a good scheme of questions. There is some art to it, it can take various forms, it can satisfy a range of criteria: all depends on the selections made and the arrangement given to them for a given purpose. Happily, for any scheme there is an ultimate criterion available to us, if only after the fact. And that is the final question to be asked.

Final question

The ultimate criterion of the usefulness of any scheme or set or list of questions, such as the scheme in table 1, is a criterion of pragmatics, namely, usage in circumstance. *How far do the questions prove to enhance thinking and acting in the domain of curriculum?* is the final test question to put to the

proposed questions of curriculum. The answer will be forthcoming, yet not in theory and not in research. We will experience it surrounding us in the circumstance of our practice, as we engage in giving good enough answers in action to the essential questions of curriculum.

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