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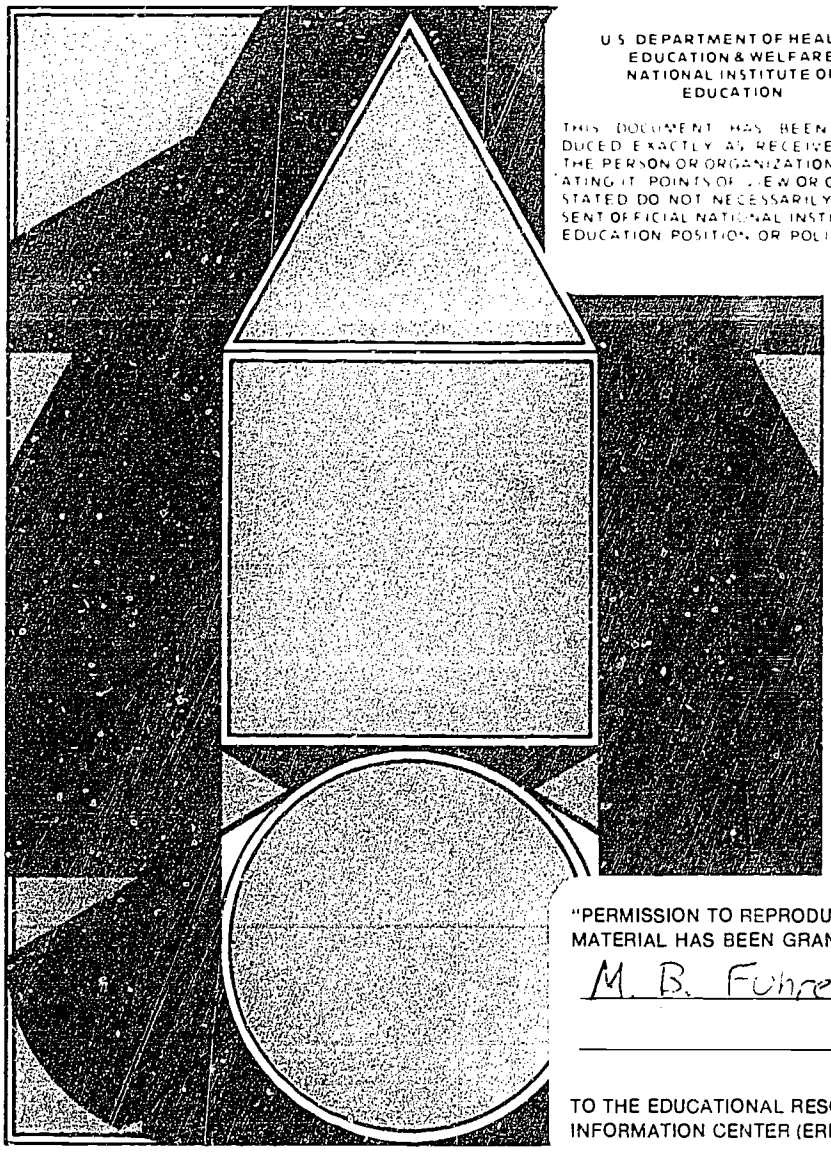
ABSTRACT

This document discusses the need to control curriculum quality and describes two methods to assess school districts' efforts at curriculum quality control. Exercising such control means effecting a congruence between what should be taught (the school district's objectives), what is taught, and what students learn. In the first method of assessing curriculum quality control, the school district looks at its own curricular documents, using the following criteria: clarity and validity of objectives; compatibility between curricular objectives and testing measures; clarity of the grade-by-grade sequence of objectives and of the description of major instructional tools; and curricular adaptability to classroom use. In the second method, called the Educational Performance Audit, independent auditors gather data from school visits and interviews as well as curricular documents. The auditors then assess curriculum quality control according to whether a district (1) can demonstrate control of resources, programs, and personnel; (2) has measurable and valid objectives; (3) has documentation explaining program development, implementation, and conduct; (4) uses results from its own assessments to correct ineffective programs; and (5) has improved "productivity" (the level of pupil achievement). The document also suggests steps for citizens to take and barriers to overcome in improving their schools' curriculum management. (RW)

Improving Curriculum Management in the Schools

by Fenwick W. English



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FOREWORD

When the effectiveness of schools is questioned as widely as it has been questioned recently, there is some assurance in studies that identify characteristics common among schools where teaching and learning go dependably forward. Thanks to the enterprise of researchers on both sides of the Atlantic, we now have a pretty clear idea of what those characteristics are. Good teaching and sound learning depend not so much on conditions that often draw attention — building design and age, school organization, school and class size, etc. The conditions that make important differences in schools are the instructional leadership of principals, definition of purpose, expectations of students, time spent "on task," and others.

Lacking still, however, is much knowledge of how to bring such conditions about where they are not already present. It is sometimes difficult even to determine to what degree they are present or absent. For a certainty, replacing poor conditions of instruction and learning with good is never easy. Money cannot buy a quick fix, because there is no such thing.

The procedure Fenwick English explains in this Occasional Paper is the kind of strenuous exercise CBE believes school improvement requires. We like the idea because it makes curriculum central; and while some business methods may not fit education, this scheme for "quality control" of curriculum deserves careful consideration.

For many years on the front lines in education as schoolteacher, principal, and superintendent, Fenwick W. English now works for Peat, Marwick, Mitchell & Co., a national accounting and consulting firm with special expertise in educational institutions. Mr. English is National Practice Director of PMM's Elementary and Secondary Education Consulting.

James Howard
Director of Publications, CBE

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Introduction

It is a rare student, parent, or teacher who has not encountered boring curricular duplication or gaps between teaching and learning in schools. Such problems are not new, nor is the fact that they have not been resolved testimony to the lack of attention by educators.

Too often the proffered solutions are simplistic. The curriculum is the glue that holds organized schooling together. This is because it transcends any individual classroom. If classrooms were not collected into larger entities called schools, and schools subsequently organized into systems, problems of schooling could be solved by focusing on individual teachers.

But that won't work. Achievement in schools is the product of many events in many classrooms in all the schools in the district. Parents and students depend upon the curriculum to challenge the student and make sense of the diverse subjects of study. Teachers follow the curriculum in order to fulfill their instructional and curricular responsibilities.

Some of the ideas explored in this paper are familiar to education and school. Many are drawn from non-educational disciplines and settings. I hope, however, that the reader will examine them afresh and consider them as "new" in an effort to explore their potential and consider their merit.

The author wishes to acknowledge the criticism, suggestions, help, and support in the preparation of the paper from two senior partners in the firm of Peat, Marwick, Mitchell & Co., Mr. Harold I. Steinberg and Dr. Robert Elkin. Their aid and encouragement were essential. Any errors or omissions are the sole responsibility of the author.

Fenwick W. English

I. Curriculum and Management

What Is Curriculum?

A curriculum is an amalgam of decisions that establishes a pattern of response to recurring circumstances within schools. A curriculum comes into being when someone decides what will be learned, how much time will be spent, and what order will be followed. Even a decision to ignore these matters is a decision, but then decision is given over to students by default.

A classroom curriculum can be as simple as constructing a required reading list (what will be learned), determining the time to be spent on each book (the emphasis), and the order in which the books will be read (the sequence). Such a reading list represents one kind of curriculum.

Why Management?

> Management is practice. Its essence is not knowing but doing. Its test is not logic but results. Its only authority is performance.[1]

Peter Drucker's concise definition of management has never been more important to schools than now. Declining test performance by students, passage of minimum competency laws, decreasing public confidence in the schools, shrinking tax support, voucher plans, and bankrupt city school systems attest to the dismaying condition of public schooling.

The public has become skeptical of pleas from educators to increase the financial support of schools in the thin hope that all will be well. No one believes that deficiencies in schooling are totally the fault of students or of society.

How can the schools become more responsive to public demands and more effective institutions of learning? What can citizens, teachers, parents, and administrators do to improve the quality of schooling? Answers to these pressing questions call for more than helping one

teacher in one classroom, altho[illegible]t is the core of the enterprise. The task of manage[illegible]s to generalize effective performance. The relation[illegible] between individual classrooms, schools, and sch[illegible]stems are the responsibility of management. M[illegible]ment is concerned not only with the individual pa[illegible]e system but also with how they work together as [illegible]m.

Curriculum As a Management [illegible]

A curriculum is one method [illegible]e that the objectives set by legitimate educational authorities are realized. No curriculum would [illegible]e required for schools if any result or outcome were as [illegible] as any other, or if the state had not decided that [illegible] results are clearly more important than others. In short, a curriculum is a management tool.

A curriculum draws the boundary of what is meant by schooling. It defines the territory in one of two ways. One way defines curriculum as the means to attain specified objectives.[2] Another way defines curriculum as all teaching and learning that may go on in school, planned or unplanned.

In the first instance, a curriculum is specific and limited. In the second, it is a sponge, soaking up all it can hold from a sea of activity. The function of the latter is to contain all possible events; its principal characteristic is *flexibility*.[3] Educators like to amplify this idea with talk about accommodating "individual differences," "teaching to the pupil's needs," "facilitating the development of attitudes for productive citizenship in democracy," and "mediating the interpersonal interests and abilities so that maximum potential is attained." Plainly, the second definition is contradictory; a boundary without limit — a curriculum without purpose — is not a curriculum at all.

Teachers tend to prefer curricula that least impair their control of classroom activities. Sociologist Dan C. Lortie describes the persistent discontinuity between

school-system objectives and teacher objectives: "Official statements of school objectives and the daily reality of classroom teaching are not the same thing."[4] To assure reasonable uniformity of results, however, a school system requires some consistency among classrooms in order to guarantee pupil learning to a demanding public.

Lortie attributes the problem to the "cellular organization" of the schools which isolates teachers, causes high turnover, and precludes "any important gains in teacher productivity."[5] It also leaves teachers unaccountable for their choices.[6] Because curricular ambiguity is so prized by teachers, preserving it is a political issue that affects curriculum management.

A school district wanting a curriculum that specifies important skills, knowledge, and attitudes to be taught and learned may find itself distracted by proposed goals and objectives that are too vague. Drucker argues that objectives should be specific and operational; that is,

> They must be capable of being converted into specific targets and specific assignments. . . . They must winnow out the fundamentals . . . so that the key resources of men, money, and physical facilities can be concentrated. They must, therefore, be selective rather than encompass everything.[7]

The political issue can be framed as follows: under what conditions and ground rules should teachers, supervisors, and policymakers share in decisions about curriculum? Leaving the issue hanging will render a school system powerless to bring about instructional improvements, given the complications of managing multi-year schooling for many students with many teachers who may interpret curricular goals differently and who work essentially in isolation from their colleagues and the system itself.[8]

Means vs. Ends

A common flaw in curriculum management is the substitution of means for ends; that is, what teachers do

instead of what pupils learn. For example, consider this objective: "Assist each pupil in learning how to write clear, logical sentences." It sounds good. What it points to, however, is the teacher's *assistance* and not the pupil's *mastery*. The objective should be rephrased: "The student will be able to write clear, logical sentences."

Other examples of substituting teacher behavior for pupil learning are shown below:

Objective	What May Be Measured
To encourage desirable pupil mastery of initial consonants l,r, and s blends.	The teacher's "encouragement" (whatever form that may take) and *not* pupil mastery of initial consonants.
To provide an understanding of Spartan culture and other militaristic societies in order to find similar governmental structures in today's world.	The teacher's "provision" (in whatever form it may take) and *not* the pupil's grasp of Spartan culture.
To recognize that students enter the classroom with various degrees of knowledge about the mechanical conventions of punctuation, capitalization, and indentation.	The teacher's "recognition" of student differences and *not* the differing *levels* of student mastery of the mechanical conventions.

Parents, citizens, teachers, and administrators should study the curricular documents of their school systems. Criteria for evaluating these documents will be presented in a later section. Properly drawn, specific objectives are critical to successful curriculum management.

Content, Priorities, and Sequence

A curriculum reflects decisions on what should be taught, what should be stressed, and what sequences should be followed. Such decisions occur at two levels of curriculum management.

The first level is inhabited by state legislatures and boards of education. Their decisions on what should be taught usually take the form of broadly stated goals, although there has been a recent trend toward mandating specific curricular objectives or competencies. In general, however, these first-level statements are not part of the curriculum as the term is popularly used; rather, they indicate the more general purposes for which the curriculum is the means of attainment.

Second-level curricular decisions are usually made by local boards of education and are more specific; these set the objectives that affect classroom instruction. For example, a curricular objective at the local level might have all students "learn to balance a checkbook" as part of a more general mandate requiring each student to master basic arithmetic. The particular objective might be located within the curriculum of mathematics, home economics, economics, or perhaps another subject.

After the adoption of goals by a state legislature or a curriculum by a local board of education, the same bodies should establish priorities. These will tell school professionals and the public what is more important, in the view of the policymakers, and what is less. Explicit priorities inform school administrators and teachers where their priorities should be set. Loosely defined priorities enable supervisors and teachers to stress their own, which may or may not be what the policymakers intended. Vague priorities give the appearance of legitimacy by allowing conflicting interpretations and thus make good management almost impossible. Accountability requires well-defined objectives and priorities. Without them, citizens have no basis for critiquing the schools, and school boards often find themselves trapped into programs that they had no desire to commission.

A third kind of decision leads to curricular sequence, the order in which the content is to be learned. Educators disagree over the value of sequence in the cur-

riculum. Some argue that sequence is a subjective determination and that research fails to show any consistent correlation between sequence and pupil achievement. For them, any sequence is as good as any other. Unfortunately, the debate sometimes obscures two salient points. First, some rational sequence is needed when the acquisition of skills or knowledge depends on prior learning, as, for example, in mathematics. In addition, a sequence is necessary for gathering systematic data about pupil learning.

Suppose, for example, that a teacher gives a diagnostic reading test to fifth graders and finds that several do not know vowel digraphs (oy, oi, ow, etc.). The teacher organizes a small remedial group, and the students master vowel digraphs. Suppose a different teacher encounters students who do not know vowel digraphs, but this one raises the problem with fellow teachers. Together they decide that vowel digraphs should be taught in the second grade so that fifth grade teachers needn't create remedial groups. In practice, however, vowel digraphs can be taught anywhere in the curriculum. What if a teacher decides not to teach them? It is the curriculum that fixes the responsibility of teaching vowel digraphs in the second grade, not elsewhere.

In this way, the curriculum performs a management function by defining the content, emphasis, and sequence of learning. It does so in the interest of economy of teacher time, pupil time, and other school resources, all of which are limited.

II. Curricular Assessment

Testing and the Curriculum

It may surprise many citizens that most school districts cannot state the extent to which the standardized

tests used in their schools assess the curriculum.* The divorce between testing and curriculum may be one reason many districts oppose increased testing. It is also why teacher antipathy towards testing is usually militant. Most teachers have never learned to use test results and relate them to their own teaching objectives. Ordinarily, standardized test questions are considerably more definitive than most classroom teaching objectives. Furthermore, when the curriculum is so vague that teachers can do most anything, standardized tests exert a kind of control not sensed from other quarters.

These comments are intended not to defend standardized testing but to describe the inability of teachers and administrators to see much value in test data when the information appears so unrelated to their other activities. Teachers resent the control that testing appears to impose and they see constraint on the curriculum as an improper function of testing.

Standardized tests should not define the curriculum. They should be used to assess whether students have accomplished the objectives of the curriculum. It is undeniable, however, that tests have become the curriculum in some instances. That is, instead of an elected or appointed board of education defining a curriculum with locally adopted objectives, a test publisher elected by no one defines the curriculum and the objectives.

In short, a school district should know how well a particular test matches its curriculum. The curriculum should state precisely what students are expected to learn, and the testing program should be aligned to the objectives. When test data are obtained, then the district has the capability to make adjustments among all three elements (objectives, teaching, and testing) to improve pupil achievement.

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* A standardized test may be norm-referenced, which compares pupils against other same-aged pupils in a representative sample, or criterion-referenced, which compares pupils against pre-set standards of knowledge or skill.

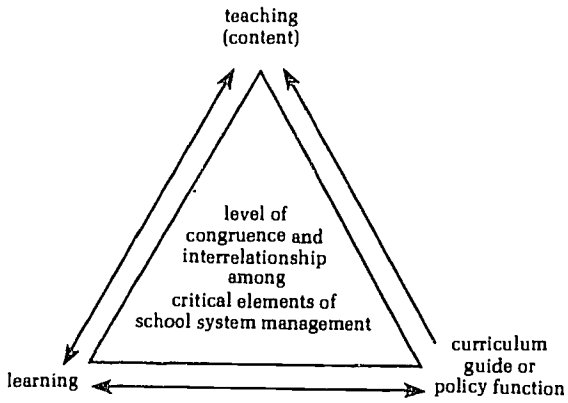
The Concept of Curricular Congruence

To manage a curriculum well means effecting a planned and systematic congruence or "match" between (1) what the teacher does teach, (2) what the teacher should teach, and (3) what students actually learn.

Figure 1 depicts how these three elements are integrated into one coordinated activity. Congruence is the term for the ability of a school district to define, establish, and maintain integration among all three, a function of management called *quality control.*

If a school district knows (a) what it wants to accomplish, (b) how to perform as required, (c) how to assess the results, and (d) how to make adjustments so that a greater proportion of the results are attained, it knows how to exercise quality control.[9] When it knows how to do this consistently without using more resources (time, money, and materials), it is capable of becoming more *productive.*[10]

Figure 1[11]



Good quality control enables a school district, school, or teacher to narrow the gap between desired and actual pupil learning. Obviously, an assessment of quality control cannot be precise; it has to be judged in relation to the situation and the resources available.

The variables that schools can control to make a difference in what pupils learn are: what teachers choose to teach, how much time they spend teaching it, and the order of the things taught.[12] Educational researchers have lumped the first two variables together and dubbed them *time on task*.[13]

Table A gives an example of determining one type of curricular congruence. The table compares objectives set by a board of education for various subjects to the percentage of pupils at a hypothetical high school affected by the various subjects in four years.

Table A
Hypothetical Congruence Between a Board's Objectives and Subjects; Percentage of Pupils Affected in Four Years of High School

Subject	Congruence with Board's Objectives	Percentage of Students Affected
1. History*	16%	73%
2. Mathematics*	8%	50%
3. English/Composition*	23%	84%
4. Science*	4%	61%
5. Vocational education	74%	13%
6. Physical education	19%	98%
7. Foreign language	3%	11%
8. Health	6%	39%
9. Music	2%	18%
10. Art	1%	8%

*Board priority area

The table indicates that the best match between the board's objectives and any subject occurred in vocational education (74 percent), followed by English/Composition (23 percent), physical education (19 percent), and history (16 percent). Yet vocational education in this high school affected only 13 percent of the students over four years, while the other three subjects affected nearly all students.

There was only a 16 percent congruence between the board's history objectives and the history curriculum. This means that 84 percent of the history curriculum was not accounted for in objectives that affected 73 percent of the students, a striking example of what is called *slack*. The lack of congruence ought to prompt several questions. What makes up the 84 percent? Is history sequential or merely a potpourri of mini-courses? How is the history curriculum defined? Who is accountable if it is not effective? How is its effectiveness judged?

Classifying a school board's objectives by assigning them to the various subjects helps to understand the relative importance of each objective and raises questions about how the board indicates its priorities to the professional staff. Lack of congruence is not a bad quality by definition; indeed, it identifies fractions of the curriculum that are unaccounted for.

In the example shown in Table A, the board's objectives may be overbalanced in favor of vocational education. Other subjects may require more emphasis. Mathematics and science, for example, are designated as priority subjects but have only 8 percent and 4 percent match with the curriculum, respectively. Or the board may wish to establish new priorities in music and art; by altering the curricular requirements, the percentage of students affected can be increased.

Criteria for Judging Curricular Congruence and Quality Control

There are ways that curricular congruence can be assayed. A school district should start by reviewing all its curricular documents.

The tripartite elements of quality control were illustrated in Figure 1. Curricular documents should describe all three components and explain the interrelationships among them.

Criteria for judging the effectiveness of quality control through the use of curricular documents have been

developed by the author in his work for an accounting and management consulting firm.

Criterion 1: Clarity and Validity of Objectives. A well-managed school district usually has curricular documents that indicate specific and measurable learning objectives in each subject. The objectives are the benchmarks by which learning is assessed. Proper objectives clearly indicate what the student is expected to accomplish, the instructional conditions under which the student is to work, and the standards of acceptable performance upon which achievement will be judged.

Administrative records should explain the procedures by which objectives have come to be defined and adopted. What authorities were consulted? What procedures were used by the board and staff to secure community opinion as part of setting objectives? How was this accomplished? Were the procedures systematic?

Criterion 2: Match Between the Curriculum and Assessment. A well-managed school district has taken steps to match standardized testing to the curriculum. Every test question should relate to one or more learning objectives. Every objective should lead to assessment by standardized testing or some other means. In this way, schools will know whether the curriculum works. Furthermore, teachers will know which objectives will be assessed by testing and which by other forms of assessment.

The pairing of objectives and test items enables the staff to ascertain whether a test fairly measures what students have had a chance to learn in school and avoids testing students on subjects or skills they have not been taught. The development of tests should *follow*, not precede, the development of objectives, or the curriculum may become hostage to the test. In short, the test should *reflect* the curriculum, not dictate it.

Not all school learning is amenable to conventional written testing. Attitudinal objectives, for example, may have to be assessed subjectively by the teacher or by the

pupil using a self-inventory. By pairing objectives and test items a school should not expect to reduce all of the objectives to those most easily measured, but should come to know which parts of the curriculum are best assessed by what method. Most outcomes of schooling can be assessed, but not on a single scale and not with the same reliability or validity.

Criterion 3: Definition by Grade of Essential Knowledge, Skills, and Attitudes. A well-managed school district shows in its curricular documents the desired (or required) sequence of instruction. Research does not provide unequivocal answers to questions about how sequence affects learning. Some sequential patterns are rather arbitrary. Nonetheless, some sequences are simply not as effective as others. A curricular document ought to acknowledge this fact where it applies and set forth the options that may be followed. It should also explain the variables and the reason that one pattern may be more effective than others. Variables may include the nature of the knowledge or skill to be learned, the background of the learner, applicable learning theories, and the background of the teacher.

Criterion 4: Description of the Major Instructional Tools. A well-managed school district is able to show how its major instructional tools are related to objectives, grade by grade. The most common instructional tool is the textbook. In truth, for many school districts, textbooks are the *only* curriculum.

Vague learning objectives encourage textbook adoptions to be based on criteria such as balanced portrayal of the races and sexes, availability of workbooks, colorful graphics, and the like. While these criteria are important, they may have little to do with helping students learn what the curriculum outlines. Unless instructional objectives have been made specific in the curriculum, textbooks cannot be selected on the basis of curricular match.

Instructional materials should be judged on their match with the stated and adopted instructional objectives of a school district, particularly those objectives for each subject. Materials that meet this standard should also be free of sexist language and racial stereotypes, pleasant to use, and accompanied by appropriate supplements for teachers and students.

Criterion 5: Adaptability for Classroom Use. A curriculum should be easy for teachers to employ from day to day in the classroom. The so-called scope and sequence chart, which shows grades in school and topics taught, is practically useless for this purpose. It arrays general objectives grade by grade but gives teachers no help in translating the guidance into action. As a result, teachers commonly turn to the guides that accompany commercial textbooks. In this way, textbooks supersede the board of education in setting the curriculum.

A well-managed school district develops curricular materials that outline expectations and means of attaining them. Without such assistance for teachers schools cannot be certain that different teachers can follow a curriculum consistently from year to year.

Good curricular guides are not straitjackets. They are not designed to stamp out creative teaching but to ensure that all teaching is directed toward maximum learning in the limited time available for schooling. Only a romantic would argue that detailed and directive guides are impediments to creative teaching. But creativity does not imply a license to do anything a teacher desires. Teaching should never be random or undirected. In classroom settings creativity is the capability of the teacher to produce desired learning with imagination and skill.

Figure 2 summarizes all five criteria and presents a four-point ranking scale for use by professional educators or citizens in examining curricular documents.

Figure 2

Sample Form for Rating Curricular Quality Control as Evidenced in Curricular Documents

Rating Scale

3 = Defined specifically
2 = Defined generally
1 = Defined vaguely or merely implied
0 = Not defined

_____ _____
Subject School

_____
Grade

Criteria	Rating 3	2	1	0	Points
1. **Clarity and Validity of Objectives** —specific and measurable pupil-based objectives —procedures used to establish validity	___	___	___	___	_____
2. **Match Between Curriculum and Assessment** —test match, objective-by-objective —parts of the curriculum not assessed are identified —assessment methods described	___	___	___	___	_____
3. **Definition by Grade of Essential Knowledge, Skills, and Attitudes** —assumed prerequisite knowledge, skills, attitudes listed by grade	___	___	___	___	_____
4. **Description of the Major Instructional Tools** —criteria listed for textbook use —match between the textbook and curriculum, objective by objective	___	___	___	___	_____
5. **Adaptability for Classroom Use** —specific examples of how to teach —interpretations of pupil response	___	___	___	___	_____
	___	___	___	___	_____
					TOTAL

III. An Educational Performance Audit

A Method for Assessing Curricular Quality Control

A recently developed method for assessing a school district's curricular quality control consists of an objective, independent review of the essential components of curriculum management. It is called an educational performance audit, or EPA.

An EPA can provide approximate but useful answers to the questions listed below:

— Are the learning objectives adequate to guide the allocation of school resources?
— How does the school district select and design educational programs? What criteria are used?
— Are the existing programs the best possible responses to the stated or assumed educational requirements?
— What methods are used to assess students' performance? Are the methods adequate?
— Are the existing programs working satisfactorily?
— What methods are used to correct weaknesses in instruction and learning?
— In what ways can the district become more accountable to the public?

To embark on an EPA, a team of auditors is assembled. The auditors should be judged by three standards of qualification: authority, objectivity, and integrity. Educational auditors should be recognized experts in management, program development, curriculum. and assessment — preferably men and women with firsthand experience in managing educational programs. They should be capable of objective observation and reporting and should have no personal or financial interest in the outcomes of the study. The integrity of an audit requires that the entire process, from planning to final report, be complete and fair, with no omissions of data or conclusions. An EPA stands in marked contrast

to public relations practices that report only good news about school districts.

The auditors gather data for an EPA from three basic sources: (1) documents (including administrative records and curricular guides), (2) personal interviews, and (3) visits to schools. The data are then compared to five standards that are discussed in the following paragraphs.[14]

Standard 1: The School District is Able to Demonstrate its Control of Resources, Programs, and Personnel. This is the most fundamental standard of an EPA. A school district without good control cannot assure the public of the proper and prudent use of its financial and human resources.

Control does not mean manipulation or coercion. It means only that the school district is able to monitor its own performance against specified objectives so that it can make corrections whenever results deviate significantly from desired outcomes. A good system of internal control helps the staff to know what is expected, what is happening, how to initiate corrective action, and how to anticipate the consequences. A system of control ensures that all concerned understand the assignments of authority and responsibility.

Standard 2: The School District Has Measurable and Valid Pupil Learning Objectives. Sound educational management also includes the development of specific and valid pupil learning objectives. An EPA may reveal crippling deficiencies in what a school district has set out as the major curricular objectives.

One school system that recently commissioned an EPA was trying to improve overall achievement in reading and math after a protracted period of dissatisfying results. The board and top-level administrators believed that precise learning objectives would be constricting to the professional staff and therefore unwise, so they stated only general educational goals.

When teachers were interviewed by the auditors, they said that the general statements were useless and that they did not understand what was desired by the board. As a result the board had to accept almost any program set forth by the staff because the vague goals provided no criteria for judging whether the programs worked. From a managerial perspective, this situation:

— prevented the board and central administration from being accountable to the public for specific learning objectives, because no specific objectives had been formulated;
— made it impossible to use standardized test scores constructively, because testing and instruction were not matched;
— excused the board and central administration from having to take any action in the face of evidence that pupils were not learning, because blame could be shifted easily to teachers, pupils, and parents;
— precluded any judgments about the quality of instruction in particular classrooms or schools.

Specific objectives are essential for a school district to know which programs are effective and which are not. They are necessary as guidelines for adjusting programs, and they provide the basis for individualized instruction, remediation, and the creation and evaluation of alternate programs. They are also required for setting priorities.

Standard 3: The District Has Documentation Explaining How Its Programs Have Been Developed, Implemented, and Conducted. The third standard assumes that educational programs are combinations of resources (staff, time, and materials) designed to attain a measurable set of outcomes of pupils. The district, therefore, should have data and records telling how programs were conceived. Records should include the overall rationale for decisions. The district should have a system for collecting necessary data to be used as the basis for improving programs.

Adjusting a program implies attaining greater congruence among objectives, teaching, and learning and, as a result, increasing the level of pupil learning. For this sequence to occur, the school district must be able to retrieve important student information and must have verified the validity and reliability of the data.

Standard 4: The School District Uses the Results from District-Designed Assessments to Adjust, Improve, or Terminate Ineffective Practices or Programs. The fourth EPA standard helps to judge how much a school district actually uses information about pupil learning in making decisions. Decision-making should rest upon a well-designed longitudinal data base. To have any benefit, data must be used routinely in program development and evaluation.

Standard 5: The School District Has Improved Productivity. The idea of productivity has a special meaning for schools. Productivity is a measure of a district's ability to obtain a desired level of pupil achievement with a given budget. School districts can learn to increase productivity and to measure the change. Better productivity entails better congruence among the critical elements of schooling already described and thus, better learning using the same or fewer resources.

Controlling productivity involves knowing costs and how to relate them to the curriculum for management purposes; that is, knowing what costs can be attributed to the curriculum and whether they can be controlled by the district.

Curricular Costs: Definition and Control

There are three kinds of costs: *fixed*, *variable*, and *mixed*. *Fixed* costs are those that remained unchanged regardless of declining or increasing demands. For example, the costs of the superintendency are *fixed*; enrollment may go up or down, but most school systems will still employ a superintendent.

A *variable* cost is one that is directly related to

changing circumstances. For example, each pupil must have textbooks, tests, pencils, laboratory equipment, etc. The cost per pupil varies directly with each of these elements.

Mixed costs are those which under certain circumstances are changed, but only indirectly. Class size, for example, can be called a mixed cost item in school budgets because the cost per pupil is not always affected by changes in class size. Enrollment must decrease or increase past certain limits before a district will either add or subtract staff and thus alter costs.

When analyzing costs and productivity, the task is to identify the kinds of costs involved in learning and to understand how they may be controlled.

The three kinds of costs (fixed, variable, and mixed) are subject to three variables: *volume*, *environment*, and *executive decisions*. If too many students sign up for one class in Latin and extra sessions are necessary, then curricular costs are influenced by *volume* (student demand). If the community insists that Latin be offered regardless of low volume, then curriculum costs are affected by the *environment*. If neither student enrollments nor community requests call for the Latin course, but a board of education orders it added to the curriculum, then costs are the result of an *executive decision*.

Auditing a school district for evidence of productivity requires an analysis of the three kinds of costs and the three variables that influence the costs. Such analysis depends on school district documents for cost accounting, budgeting, and curriculum.

An EPA is one method that a board of education, administration, or community may employ to assess the quality of curriculum management. Citizens can have enormous influence in the operation of a school district, as most experienced school leaders will testify. Their influence can be constructive or destructive, depending upon their concerns and their knowledge of school

management. Their influence is unpredictable when they are not clear about how to control the curriculum, are not aware of the complexity of school management, or do not sustain their interest. An EPA can help to avoid such traps.

Measures Citizens Should Take

Examine Results. Citizens should concentrate attention on the results of instruction — the amount, type, and improvement of student learning. Test scores are an easy place to begin, but always with this warning in mind: the scores will be useful only if there is good congruence among curriculum, instruction, and testing. Public consternation about low scores may pressure the school district into misguided emphasis on raising scores or may cause foolish stress on subjects that are more easily tested than others.

Citizens should ask which students are actually involved in testing and which students are not. They should ask not only what curricular objectives a test assesses, but how many students took the test and where they stand in the class. They should ask that the district show how the content, emphasis, and sequence of the approved curriculum are being fairly and fully evaluated.

Citizens should also ask what objectives are *not* assessed by standardized tests. What evidence is used by the staff to determine if students have learned these objectives? Citizens should be involved in committees to work with the professional staff in planning test programs and in choosing tests. Test selection, as opposed to test development, is not such an arcane practice that citizen participation must be precluded.

Look for the Connection Between Curriculum and Instruction. Clear objectives and gratifying test scores are not by themselves sufficient evidence of good curriculum management. Citizens should receive an accounting of the

managerial process. Who sets the objectives? What is the rationale? How are assessment results used, by whom, under what guidelines? What program changes have been made on the basis of the results? What does the staff plan to do if programs don't work?

The tendency for school administrators to be evasive may be understandable. The problems often seem intractible and complex. On the other hand, a grant of latitude may obscure a failure to define a problem adequately or an inability to understand the relationships between curricular decisions and student learning.

Citizens can be involved constructively in textbook selection, which should be coordinated with assessment and with the curriculum. To repeat — all three should be congruent.

Citizens should examine the criteria by which textbooks have been selected. They should learn what textbooks were considered and rejected, whose expert opinion was consulted, and what field testing was done. They should guard against adopting texts solely on the basis of book publishers' sales pitches. Textbooks should be evaluated periodically for the learning they produce.

Insist on Candid Reports, not Public Relations. Citizens should insist on receiving balanced reports that present the strengths and weaknesses of a school district. In recent times, the public relations approach that offers only the bright side of the news has contributed to the loss of public confidence in schools, particularly when test scores decline and other news stories indicate that something may be seriously wrong.

Sustain Interest. Citizen interest in the schools often flames up during a fresh crisis. Once the heat has cooled, interest may disappear and, with it, the chance for long-term influence on curriculum management. Sustained interest is important because the management of a school district is complex and involves many persons.

People do not usually change long-standing habits without a sustained force pushing for change. In other words, citizens should appreciate that any substantial alteration in the quality of management occurs gradually and demands more than attending one or two meetings a year.

Ask for an Independent Review. Periodically, citizens should insist that their school district be examined by independent experts. Too often reviews are undertaken by agencies concerned with irrelevant criteria, by colleagues reluctant to be candid, or by friends with something to lose if the review is unfavorable — political support from the district, for example, or future commercial benefits.

Barriers and Ways to Overcome Them

No discussion of citizen efforts to improve the quality of curriculum management would be complete without acknowledging the chief obstacles and mentioning tactics for circumventing them.

Information Overload. When citizens begin asking probing questions, they may find themselves swamped with documents, studies, reports, position papers, etc. Even some school board members complain that this strategem appears to be used by some school administrators to dissuade them from poking about the school system.

Few laypersons relish the job of studying stacks of reports filled with footnotes and professional jargon. Citizens (and board members) should ask for summaries that explain the documents, indicate significance, and tell how they have been used by the administration.

Fear of Being Labeled Malcontents. Citizens are sometimes afraid to question their school districts for fear of being called malcontents. If there is no specific curricular

issue facing the community, it can be difficult to explain the need for reviewing curriculum management.

Citizens should not be put off by their apprehensions. Improvements in school district management sometimes require intense prodding from outside the circle of school officials. Broadly based inquiry into school management can avoid the emotions of single-issue controversies and gradually attract beneficial press attention. In short, citizens should work to develop a climate that encourages constructive responses to their queries about curriculum, instruction, and learning.

Defensiveness by Officialdom. When citizens request information, they may encounter resistance and defensiveness. Officials in school systems with chronic problems may develop a siege mentality. To them, every question may portend a battle and thus evoke not a straightforward answer but an elaborate defense against a presumed accusation.

If citizens are thought to be witchhunting rather than voicing legitimate concerns, they can expect not only a battle but very likely the creation of opposing pressure groups in the community. To avoid this problem, citizens should be candid about their motives. When trust permits a lowering of defenses, citizens may be surprised to discover allies within the school system. No single faction has a monopoly on the desire to help children learn.

A Desire for Rapid Solutions. Citizens not familiar with the intricacies of school district operations may be attracted to simplistic solutions that sound all right but cannot possibly work. The appeal of quick and simple remedies is that they appear to reduce the necessity of prolonged diagnosis. Worse, such ideas enable the opponents of reform to deal only with the proposed poor solution instead of forcing a careful examination of the problem. Typical response to a simplistic suggestion is,

"We are already doing that," or, "We tried that and it didn't work."

Citizens can steer clear of such impasses by refusing to embrace seemingly quick and easy solutions. First they must talk with school officials to learn their views of the problem, what solutions they tried, the factors they considered, and the reason officials chose the policy or practice being questioned. This approach will help show that the questioners are judicious and deliberate, rather than thoughtless and impetuous in their efforts to bring about change.

Impatience and Limited Time. Impatience is the enemy of meaningful change because it works to the advantage of the opponents of change. The school system is there. It will probably be there next year. Citizens must be methodical, patient, and persistent in obtaining the answers they seek.

Sometimes citizens can prevent a premature conclusion by asking school officials to postpone a decision and allow more time for thoughtful community discussion. This request cannot be rejected easily except in extreme emergencies. Few school administrators or boards want to run roughshod over community opinion. Citizens usually find that reasonable requests — especially those that are reported in the local press — are respected.

IV. Summing Up

Curriculum is not the only element of schooling that affects what children learn, but it is a major element that can be directly managed to improve gradually pupil achievement. Citizens who understand the principles of an educational performance audit and who cause audits to become a regular part of school district evaluation will greatly improve curriculum management and thus student learning in their district. But the true test of an educational performance audit is putting the results to

work. An EPA can give citizens the knowledge needed to ensure that curriculum is firmly directed toward a school district's most important goal — the students' learning.

NOTES

1. Peter F. Drucker, *Management* (New York: Harper and Row, 1973), p. xiv.
2. See Fenwick W. English and Roger A. Kaufman, *Needs Assessment: A Focus for Curriculum Development* (Washington, D.C: Association for Supervision and Curriculum Development, 1975).
3. Fenwick W. English, "Untieing the Knots in Public School Curricula," *Management Focus*, May-June, 1979, pp. 32-38.
4. Dan C. Lortie, *School-Teacher* (Chicago: University of Chicago Press, 1975), p. 110.
5. *Lortie*, p. 23.
6. Kieran Egan, "What Is Curriculum?" *Curriculum Inquiry*, Spring 1978, pp. 65-72.
7. Drucker, op. cit. p. 99.
8. For a technical discussion of management theory and curriculum development see Fenwick W. English, "Curriculum Development Within The School System," Chapter VIII in the *1980 Yearbook of the Association for Supervision and Curriculum Development*.
9. Fenwick W. English, *Quality Control in Curriculum Development* (Arlington, Virginia: American Association of School Administrators, 1978).
10. Fenwick W. English, "Effective Ways to Improve Public Education," *Management Focus*, November-December, 1979, pp. 2-10.
11. This diagram first appeared in Fenwick W. English, "Re-Tooling Curriculum Within On-Going School Systems," *Educational Technology*, May 1979, pp. 7-13.
12. Fenwick W. English, "Management Practice as a Key to Curriculum Leadership," *Educational Leadership*, March 1979, pp. 408-413.
13. See David C. Berliner, "Successful Classroom Teaching and Learning," paper presented at the meeting of the Educational Forum, Washington, D.C., November 6-7, 1978.
14. The section regarding standards of the educational performance audit was previously published in the same or modified form in an educational performance audit completed for the School Committee of Citizens Research, Incorporated, of the Columbus, Ohio, Public Schools by Peat, Marwick, Mitchell & Co., September 1979.

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