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Curriculum, Instruction, Assessment, and Standards

In this chapter, curriculum is defined so that readers can have a shared understanding of this key term. Next, we examine approaches to curriculum that schools use to address standards and high-stakes testing as a way to discuss the interrelationships of curriculum, instruction, assessment, and standards. I suggest why these approaches may not work over the long term and propose a model demonstrating how the balanced curriculum integrates curriculum, instruction, assessment, and standards.

CURRICULUM: WHAT IT IS AND WHAT IT IS NOT

Curriculum describes (in writing) the most important outcomes of the schooling process; thus, the curriculum is a document in which resides the district's "collected wisdom" about what is most important to teach. When reviewing book titles or chapter headings in a textbook, the titles summarize the most important concepts covered by the textbook, just as unit titles or courses in the curriculum indicate the most important ideas to be taught.

Curriculum is based on standards; as a result, curriculum and standards are linked. Curriculum specifies how standards are met. Standards are not the curriculum. Rather, standards provide a vision of the appropriate content and processes

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(usually for a subject area, such as mathematics) by outlining what students should know and be able to do across a range of grade levels. Curriculum is more specific than the standards. Whereas standards usually describe appropriate content and processes for a range of ages or grade levels, curriculum specifies what should happen during a shorter period of time, such as a year, quarter, or a month. Decisions about what is most important to teach and learn should be made with the standards in mind. Furthermore, a good curriculum documents the alignment process and balances the curriculum in reference to the standards.

A curriculum is the plan that focuses and guides classroom instruction and assessment. For example, if a social studies curriculum specifies a unit on World War I, teachers need to instruct on World War I and not the Great Depression or current events. Even though those topics are valuable, having a unit on World War I in the curriculum says that learning about World War I has the most value. Students, therefore, should spend time learning about World War I.

If the curriculum focuses on World War I, then the classroom assessment also needs to focus on World War I. In this way, the curriculum, the curriculum-embedded assessment, and the instruction are aligned with each other. Assessments answer the question of how much knowledge and skill are good enough to meet the standards aligned in the unit. Teachers use assessments to determine how good is good enough. Classroom assessment is inexorably linked to the curriculum.

Curriculum sequences the outcomes so they build on each other. This ensures that students have the prerequisite skills necessary for success on the next unit or grade level. Although a sequential order may not be inherent in every discipline, a curriculum can overcome problems of sequence. For example, for mathematics, automaticity in number facts is a prerequisite to fluent application of multiplication or long division algorithms. Curriculum can provide a sequential plan for instruction that specifies student memorization of number facts before going on to multiplication or division algorithms.

High-stakes tests and state standards influence curriculum design. To be fair to students, content and skills assessed on high-stakes tests need to be covered in the curriculum, requiring curriculum decisions to be aligned and balanced with these tests. In this way, the weight given to the standardized tests' content and skills is appropriate given other influences on the curriculum, such as student development. High-stakes tests are linked to the curriculum and influence its design, but they are not the only influence.

The curriculum plan is rooted in students' human development. Some view curriculum as the district's plan for student development. This expands the scope of curriculum. For example, if we know that 5th-grade students wrestle with the issue of fairness (see *Nothing's Fair in Fifth Grade* by Barth DeClements), then part of a 5th-grade curriculum might directly address this developmental task through discussions of rules or examination of literature that deals with fairness issues. When curriculum is designed to meet many different criteria, such as informing developmental tasks as well as fitting into a state-prescribed scope and sequence, the curriculum is strengthened.

Curriculum is discipline based. Subject areas (English, mathematics, social studies, science, and the arts) drive curriculum. Disciplines encapsulate different ways of seeing and knowing the world. A geologist sees a grain of sand differently from a poet. A curriculum is a plan for helping students to understand the differences in the ways various disciplines view the world.

Curriculum applies learning theory to instructional design. For example, we know from learning theory that paced practice is generally better than massed practice. So, to practice for high-stakes tests, we know that it is better to practice over a longer period of time than to practice a large amount over a shorter period of time. One-month review sessions before high-stakes testing is a misapplication of learning theory. Curriculum can help to institutionalize appropriate applications of learning theory and instructional design and provide a structure for eliminating instructional practices that do not make sense. In the Balanced Curriculum, periodic assessments give students practice on the format of high-stakes tests throughout the year, not just a month before testing.

Curriculum development and implementation is the province of the district, not the school. Schools generally do not have the capacity to develop their own curriculum, just as individual teachers find it difficult to invent a curriculum if none is provided. Furthermore, by law, districts are generally charged with developing and implementing a curriculum. When districts abdicate this responsibility, schools, students, and families suffer. In the Comprehensive School Reform Design, for example, schools could apply for money to implement one of many school reform models. In some districts, many models were adopted, leaving the district to try to manage and understand many different approaches to what is most important to teach students. This further fragmented and complicated the district's responsibility for authoring and implementing a strong curriculum.

Curriculum is not standards, tests, textbooks, or programs. Standards tell what is important for students to know and be able to do, but they don't tell a district's teachers how the standards should be met (see Chapter 3). Tests, both standardized and state developed, are not the curriculum. Tests are designed to sample a small portion of students' knowledge. From that sample of knowledge, tests are designed to support inferences about how much students know (see Chapter 4). For example, if I get the only two problems dealing with multiplication correct on a test, the testing entity assumes that I probably know how to multiply. Tests are limited by the number of concepts and applications that can be covered in a short testing period, which restricts the number of topics that can be adequately "tested" so the inferences are valid. Tests, then, contain only a small but important subset of what students need to know and be able to do. High-stakes tests are not the curriculum.

Just as tests are limited, textbooks are too broad in scope to be considered a curriculum (see Chapter 2). Textbooks, given market forces, are designed to be all things to all teachers and students. In most textbooks, complete coverage of the textbook is impossible. So teachers pick and choose what is most important for their students or what they like most. Teachers using the same text cover content differently. Generally, little coordination happens among teachers within a school, let alone coordinating what happens across a district using the same textbook series. Districts that assume the textbook is the curriculum have difficulty knowing or controlling what students learn as different teachers' decisions to cover different content in the text leaves the next year's teacher with no standard expectation of what was most important for students to know and be able to do.

Programs are not the curriculum. Generally, programs address pieces of what should be in a curriculum. Districts who rely on adopting a series of programs as a way of meeting standards or assuring high quality may underestimate the difficulty of stitching programs together in an integrated whole. For example, a handwriting program may be adopted as a way to structure and sequence instruction.

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If the handwriting program requires a half-hour a day of a 2-hour language arts block, the time requirement may be too much. As a result, other parts of the language arts program, such as spelling, literature study, or phonemic awareness, might suffer as teachers make decisions to implement the handwriting program in the time period specified.

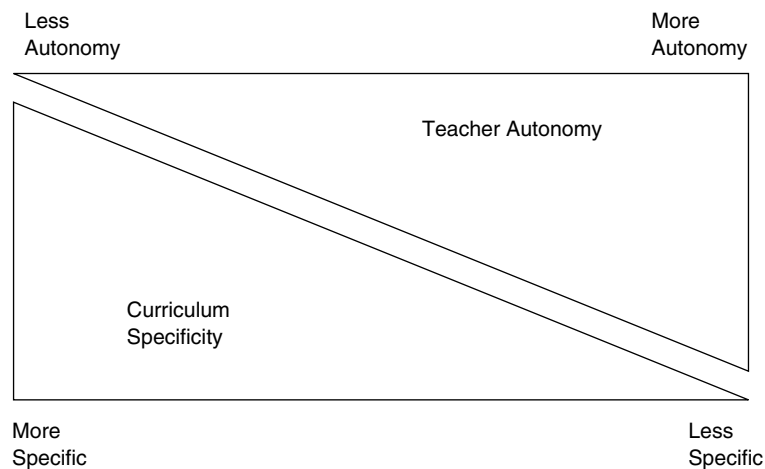
TEACHER AUTONOMY AND THE ROLE OF CURRICULUM

The dilemma for districts is to strike a balance between teacher autonomy and curriculum specificity. The diagram in Figure 1.1 indicates that teachers will have less autonomy when the curriculum is more specific. With no curriculum, teachers have complete autonomy to teach whatever they want. Conversely, a very specific curriculum that indicates what should be taught, how it should be taught, and when it should be taught leaves teachers with less autonomy.

Generally, districts have given teachers more autonomy with little curriculum guidance. High-stakes testing and standards then enter the picture. Districts try to use the high-stakes testing and standards as a basis for limiting teachers' autonomy so the appropriate content is addressed. The tool of curriculum was little used in the past; if it was used, it was constructed in such a way that it did little to limit teacher autonomy, and the curriculum atrophied. Now, districts don't see curriculum as the tool to make sure there is balance when addressing standards and high-stakes tests. District leadership may not want to be more specific about the curriculum because of the "infringement" on teacher autonomy. Yet they want the standards and high-stakes tests covered. Instead of using curriculum to decide what is most important to teach and learn, including standards and tests, districts abdicate their responsibility by saying teachers must cover what is on the test, and the rest is left up to teacher discretion.

To bring all students to high standards, districts need to examine their stance on curriculum. We know most students can learn if they are taught. Curriculum's

Figure 1.1 Teacher autonomy and curriculum specificity



purpose is to help teachers understand and deliver to students what is important for students to learn, and districts need to decide what this is. Curriculum is *the* tool available to balance competing priorities. The Balanced Curriculum process provides a template for a district-developed curriculum, within which teachers have quite a bit of flexibility.

WHY IS CURRICULUM IMPORTANT?

Curriculum is the container that holds the institutional knowledge of what was the best of past instruction. The curriculum being used now is what the district has decided is the best of the past. Curriculum, viewed in this way, is a historical document.

Curriculum is also a plan for the present. The curriculum is the district's bet that the written mix of standards, content, and skills covered in the curriculum will produce better results for students. Curriculum represents the district's bet on how to improve in the future. Curriculum, while rooted in the present, takes the best of the past to make the future better.

Nothing else in the arsenal of school reform can take the place of deciding how best to structure and sequence what is most important for students to know and be able to do so that students can and will succeed. Students need equal access to high-quality instruction. The job of curriculum is to provide teachers a structure for instruction so that they can balance the often competing forces of standards, tests, textbooks, and programs. The curriculum provides the structure for management of teaching and learning as well as staff development. Without a curriculum's structure, there is chaos.

DISTRICTS' RESPONSES TO STANDARDS AND HIGH-STAKES TESTS

In this section, I examine different district responses to standards and high-stakes testing. To understand curriculum's centrality to school and district improvement, curriculum must be seen in relationship to other tools used in school, such as standards, assessments, and instruction. To understand the variety of possible relationships, typical district responses to standards and high-stakes testing are outlined. The descriptions that follow are a typology of districts' responses to standards and high-stakes tests. We identify the approaches as *Tell Them*, *Show Me*, *Test Them*, and *Keep Up the Pace*.

Tell Them

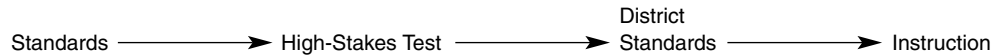
Some districts assume that if teachers have staff development on the standards and high-stakes test, then their instruction will be appropriate for covering standards. The following diagram shows that state standards influence the content of high-stakes test, which, in turn, influences instruction in classrooms. It also assumes that if teachers know the standards, the standards will be incorporated in their instruction.

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One study questions the assumption that telling teachers will change behavior. The study examined the topics teachers covered in the classroom and aligned them with the topics on the standardized test (Brady, Clinton, Sweeney, Peterson, & Poynor, 1977). The range of topic coverage on the standardized test ranged from 4% to 95%. This indicates that, left to their own judgment, some teachers will cover most of the topics and some will cover very few. Teachers are not likely to change their range of coverage based on an overview of standards.

Some districts create district standards to tell teachers the standards that should be covered at particular grade levels. District standards often take the grade range of state standards (K–4, 5–8, or 9–12) and segment them into grade-level expectations. In this case, our model looks like:



Often district standards do not specify when or how during the year the standards should be taught, narrowing the playing field a little but leaving room for individual teachers to develop their own instructional strategies.

Show Me

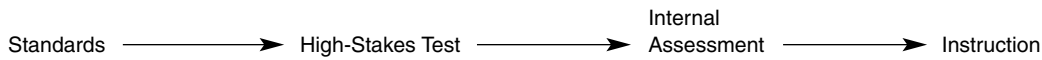
Some districts' response to high-stakes testing and standards is to provide some staff development on the standards and then require that teachers list the standards on their lesson plans. In this way, teachers have aligned the instruction with the standards and with the high-stakes test, a derivative of the standards.



This guarantees that most instruction is aligned to some standards. The district, however, has no information on what is taught or whether students have grasped the concepts because the teachers and the district have no way of aggregating this alignment data. An unanswered question for this model is, "Did the teachers miss important standards?"

Test Them

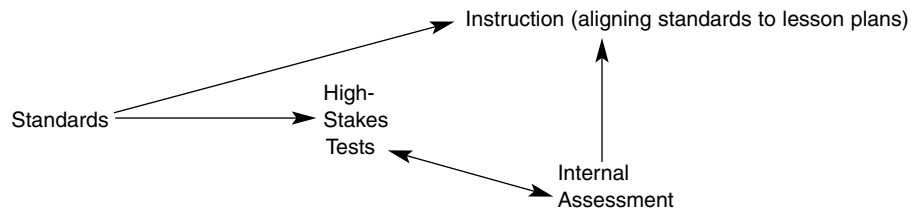
Other districts decide on creating internal tests aligned with the high-stakes tests and assume that the emphasis on local testing will help teachers focus their instruction. Districts with this approach do not know how the teachers changed instruction because a management system is not in place. Another variation on this theme is to determine "exit" performances for students graduating at particular grade levels. For example, students are required to write a paper defending a point of view and present the results to an audience of those outside the school. Such an internal assessment may or may not be aligned with standards and high-stakes tests.



With the addition of internal assessment to the model, the district now has results of the internal assessment that gives teachers and the district feedback on how well their students do on a test similar to the high-stakes test (if there is alignment between the district test and the high-stakes test).

Show Me—Test Them

A diagram showing a combination of Show Me and Test Them strategies follows. The district created internal assessments and requires teachers to align standards to lesson plans. This exerts two forces for application of the standards and high-stakes test to instruction: the alignment of lesson plans and the assumption that another assessment in addition to the high-stakes test will focus instruction.

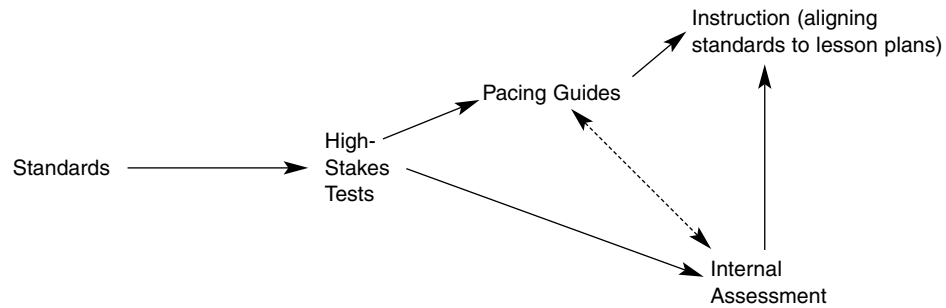


A few difficulties arise in this model. First, not all standards show up on high-stakes tests. Unless teachers know the standards tested, aligning lesson plans with standards may miss the emphasis of the high-stakes test. Second, aligning standards with lesson plans tells the standards that individual lessons address but does nothing to indicate whether, over time, some standards were left out or some were over-addressed—a matter of balance. Third, this model overemphasizes the high-stakes test by creating an internal assessment aligned with the high-stakes test. Teachers now have important pieces of data: one from the district, the other from the state, all focused on the rather narrow content of the high-stakes test. Fourth, teachers will respond to this emphasis on testing by narrowing their instruction to cover only concepts on the high-stakes test. Indeed, the district is trying to control instruction by creating emphasis on assessments. (There may be better ways to control instruction.) Fifth, as the district has no curriculum, the district does not know what is taught, or should be taught, in the classroom, except that teachers follow a certain textbook. The district is betting that by providing internal assessments and requiring that teachers align lesson plans with standards, teachers will figure out what is most important to teach.

Keep Up the Pace

Pacing guides assist teachers in making decisions on how much time should be spent on a particular area or topic. The pacing guides can tell what the topic is, give a list of standards (or objectives) that need to be covered, or show the pages in the textbook that should be covered.

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Pacing guides provide more information to teachers about what to teach and when to teach it. It is hoped that the pacing guides and the internal assessment have been aligned so that students are not required to be tested where instruction has not been provided. Pacing guides do not tell whether teachers followed them because they generally are not correlated with aligning lesson plans with standards.

All these models lack a way to know what students are learning or what has been taught because the models have no way to manage this information. Use of pacing guides may not be monitored. Alignments in lesson plans are not aggregated across time. The data from internal assessments is not in a form that can be easily used by teachers in their instructional planning. The information these systems generate is not used to further learning.

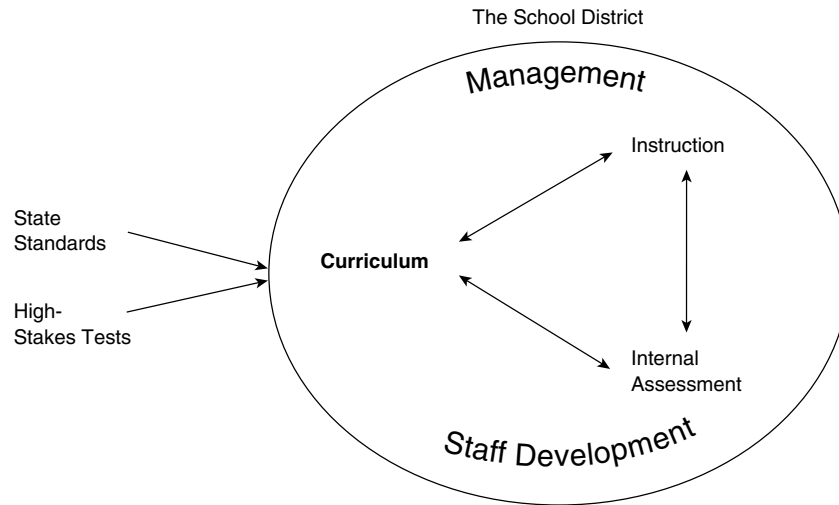
All of these models ignore curriculum as a way to help teachers and administrators understand what is most important to teach, although the pacing guide (depending on its design) approaches telling teachers the general content of what to teach and the amount of time available for a topic's instruction. Curriculum can tame the chaos of standards and high-stakes testing.

Curriculum is the lead singer, and instruction, assessment, and standards are the quartet, backed up by the management and staff development chorus. The model in Figure 1.2 incorporates ideas from the other models, but curriculum is at the center as a way to mediate high-stakes tests and state standards so that instruction produces strong results, monitored by management and supported by vigorous staff development. Curriculum's job is to decide how to incorporate the standards and high-stakes testing in the instruction and internal assessment of a school district.

Curriculum is a guide for teachers and administrators on what is most important to teach and test. Curriculum is the point at which district and state standards and high-stakes assessment are balanced with the needs of students and teachers and the materials available to teachers. Curriculum provides a cycle of conversation about what is planned for students, how well teachers deliver on that plan, and how well students achieve; it provides a structure for institutionalizing the important results of the conversation. The curriculum is the aggregate written wisdom of the district on its approach to standards and high-stakes assessment.

District and state standards and high-stakes tests create important touchstones for the curriculum. They provide parameters for teachers' decisions about what to teach and test. The curriculum is a written guide for teachers and administrators that explains how the standards should be implemented. It is action oriented and student focused.

The arrows linking curriculum to instruction and assessment are double headed, indicating that information about the curriculum informs instruction, yet instruction should also inform curriculum design. For example, the curriculum says that

Figure 1.2 Curriculum in instruction and assessment

students should understand the relationship between circumference and radius and suggests a particular way this might be taught and assessed. After teaching the suggested way, teachers in turn suggest ways the technique could be improved, and thus instruction is influencing curriculum.

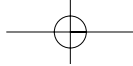
Assessment is also linked to instruction and curriculum. If students are taught about circumference and radius and then fail to do well on the assessment, consider the following suggestions:

- The curriculum needs to be changed (i.e., examined for appropriate prerequisite skills).
- The instructional approach may need changing so that students can perform better on the assessment.
- The assessment needs to be revised.

Which plan would work best? The conversation continues.

Management is at the top of the model because a curriculum, instruction, and assessment needs to be managed so that student and teacher effectiveness continually improves. The Balanced Curriculum structure has a built-in management system so that everyone clearly knows how he or she contributes to generating data and making improvement decisions.

Staff development suggestions will also come from the conversations about curriculum, assessment, and instruction and the management system. For example, a significant task required in the curriculum requires cooperative learning. Some teachers may be unfamiliar with cooperative learning techniques and will need to understand the processes and see them modeled. This is a staff development problem. Processes need to be in place to decide whether the school or district should provide the staff development after assessing needs. The circle indicates what the district can control; state standards, for example, are outside the district's change capability.



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SUMMARY

This chapter reviewed typical approaches that districts take to standards and assessments and suggested that curriculum is a useful tool in bridging the gap between standards and assessments on one hand and instruction for students on the other. The following three chapters describe textbooks, standards, and standardized assessments to understand how they fit into a curriculum structure.

