Aligning the Curriculum

Several different types of curriculum are at work in the school. When they are reasonably congruent with each other, student achievement is improved. This chapter reviews briefly the several types of curriculum and then explains how a comprehensive model for aligning these curricula can be planned and executed.

Types of Curricula

Seven types of curricula need the attention of the principal.

- **Recommended curriculum.** The recommended curriculum is that which is recommended by scholars and professional organizations. The best source for the recommendations of professional organizations is Kendall and Marzano (1997).

- **Written curriculum.** The written curriculum, as the term is used here, is the curriculum that appears in state and locally produced documents, such as state standards, district scope and sequence charts, district curriculum guides, teachers’ planning documents, and curriculum units.
**Taught curriculum**. The *taught* curriculum is that which teachers actually deliver day by day.

**Supported curriculum**. The *supported* curriculum includes those resources that support the curriculum—textbooks, software, and other media.

**Assessed curriculum**. The *assessed* curriculum is that which appears in tests and performance measures: state tests, standardized tests, district tests, and teacher-made tests.

**Learned curriculum**. The *learned* curriculum is the bottom-line curriculum—the curriculum that students actually learn.

**Hidden curriculum**. This is the unintended curriculum. It defines what students learn from the physical environment, the policies, and the procedures of the school. Here is an example. Each week teachers in an elementary school devote 250 minutes to reading and 50 minutes to art. Students learn this lesson: “In this school, art is not considered very important.”

Figure 10.1 shows the relationship of these curricula as they interact with each other. Notice that the research suggests there are varying patterns of influence among the several types. The recommended curriculum seems to have little influence on the written, although districts seem to be increasingly concerned with state standards, especially if they are accompanied by state tests. Also, the standards developed by the National Council of Teachers of Mathematics (1989) seem to have had a significant influence in the development of district mathematics guides.

**Figure 10.1 Types of Curricula**

<table>
<thead>
<tr>
<th>RECOMMENDED</th>
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| Taught        | Supported | Assessed |

<table>
<thead>
<tr>
<th></th>
<th>LEARNED</th>
<th>HIDDEN</th>
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**TABLE: CODE:**

- --- Weak influence
- ------ Strong influence

等。

◆**施教类课程**（*Taught curriculum*）。“**施教类课程**”是指教师日复一日实际传递的课程。

◆**支持类课程**（*Supported curriculum*）。“**支持类课程**”包括那些可以支持课程的资源，例如教科书、软体与其他媒体。

◆**评量类课程**（*Assessed curriculum*）。“**评量类课程**”是指出现于考试测验和表现测验当中的课程。例如州的测验、标准化的测验、地方学区的测验与教师自编的测验。

◆**习得类课程**（*Learned curriculum*）。“**习得类课程**”是指学生所实际学习的课程。

◆**潜在类课程**（*Hidden curriculum*）即非预期的课程（*unintended curriculum*）。这是指学生从学校环境、学校政策、学校教育过程当中所获得的学习。这里有一个实例，在一所小学中，教师每周花 250 分钟进行阅读教学与进行 50 分钟艺术教学,则学生学到的经验是：“在这所学校中,艺术不是最重要的学习项目。”

图 10.1 显示这些课程彼此交互作用的关系。值得留意的是,研究指出在这些许多课程类型当中,存在着许多不同的影响形态。“**建议类课程**”对“**书面类课程**”的影响似乎不大,不过,地方学区似乎愈来愈关心州政府所制定的标准,因为这些标准可能和州政府所进行的各项考
Figure 10.1 shows the relationship of these curricula as they interact with each other. Notice that the research suggests there are varying patterns of influence among the several types. The recommended curriculum seems to have little influence on the written, although districts seem to be increasingly concerned with state standards, especially if they are accompanied by state tests. Also, the standards developed by the National Council of Teachers of Mathematics (1989) seem to have had a significant influence in the development of district mathematics guides.

The written curriculum seems to have a moderate influence on the taught curriculum. Teachers report that they typically check the district guide early in the year, just to remind themselves what it includes. They are much more influenced by the assessed curriculum, especially if they are held accountable for students’ results. Students are similarly sensitive to the assessed curriculum, as evidenced in the standard student question, “Is this going to be on the test?”

Teachers are perhaps most sensitive to the learned curriculum, making their decisions on the basis of students’ needs, as they perceive them, and students’ responses to the taught curriculum. Whereas conventional wisdom holds that teachers are textbook driven, the research suggests that the textbook is only one of several sources that the teacher consults in planning for instruction (see Brown, 1988).

And textbook series often do not match closely the written curriculum because they are developed for a nationwide mass market. A relationship often exists between the written and the assessed curricula. Typically, the assessment is an objective test that samples low-level learning.

The hidden curriculum has a strong influence on what students learn. Even though students are not always aware of the impact of the hidden curriculum, they experience it every day. For example, an old building with holes in the roof and graffiti on the walls very clearly conveys the message, “People here don’t care about this school.”

These gaps have led experts in the field to recommend alignment processes.

English (1992), the chief advocate of alignment, emphasizes the need for a close match between the curriculum and the test. He explains that alignment can be achieved through “frontloading” or “backloading.” Frontloading means developing the curriculum first and then finding a test to match; backloading means developing (or locating) the test first and then developing a curriculum to match.
I recommend a more comprehensive approach that involves the alignment of all seven curricula. The alignment process is best carried out at the school level. Even though a district or regional approach might be more efficient, the school-based process results in a greater sense of ownership and serves to educate the teachers about the details of the new curriculum guide.

Providing Leadership

Aligning the Recommended and the Written Curricula

Aligning the recommended and the written curricula is primarily the responsibility of the task force assigned to develop the curriculum in a given subject area. However, the principal can play a role, as explained below.

The extent to which the recommended curriculum should determine the written curriculum varies from subject to subject. Some professional standards, such as those in mathematics, seem to be well formulated and widely approved; they thus can provide a useful guide for the written curriculum. On the other hand, the standards for English language arts (National Council of Teachers of English and International Reading Association, 1996) have been widely criticized for being too vague and excessively concerned with process; they therefore seem less useful to local developers.

Principals can play an active role in this alignment. If they are members of task forces, they can require the task force to analyze professional and state standards and determine which ones should be used in the district guide. If they are not represented on the task force, they can examine the products to assess whether the recommended curriculum has been given sufficient attention.

Aligning the Written, the Supported, and the Assessed Curricula

The principal should play an active role in working with teachers to align the written, the supported, and the assessed curricula. Because these three types are closely related, the alignment can be accomplished in one project. The following process has worked well with several school systems.

I present an even more comprehensive way, which includes all seven curricula. The alignment process is best carried out at the school level. Even though a district or regional approach might be more efficient, the school-based process results in a greater sense of ownership and serves to educate the teachers about the details of the new curriculum guide.
1. **Plan the project.** Appoint a curriculum alignment committee (or use an existing committee) to oversee and coordinate the project. Train the committee in the alignment process as it involves these three types of curriculum. The alignment committee should then train the grade-level teams, who will carry out the alignment tasks for their grade.

2. **Focus the curriculum.** The grade-level teams should carefully analyze the new district curriculum to focus the alignment process on the mastery objectives. As the term is used here, the mastery objectives are those that meet one or more of the following criteria:

   - Will likely be tested or assessed
   - Require explicit teaching

**Aligning the Curriculum**

- Are best learned when they are carefully planned
- Are essential for all students to master

These mastery objectives are different from what I have termed continuing development objects, those outcomes that should be nurtured on every suitable occasion, not taught in a specific grade level. Here is an example to show the difference:

- **Mastery:** Define metaphor.
- **Continuing development:** Enjoy poetry.

Mastery objectives should be aligned with tests and texts; organic outcomes need not be.

The complete set of mastery objectives should be stored in a computerized database, organized by grade level and then by areas within that subject.

3. **Check to be sure that the district curriculum embodies the state standards.** The state standards will surely be reflected in state tests; they also provide useful guidelines for local developers.
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4. Analyze the tests. Using a printout of the mastery objectives for their grade level, the teams should then indicate on an appropriate form which of the mastery objectives are likely to be tested. An example of the form that can be used in this process is shown in Table 10.1. In determining which of the mastery objectives are likely to be tested, the team should analyze state tests, district tests, and standardized tests. They need not analyze teacher-made tests because the assumption is that teachers will test what they have taught. In analyzing those tests, the team can use descriptions of test content and tests previously given and no longer considered confidential.

5. Analyze the texts. The final step is to determine where the mastery objectives are explained in the text. The team should check the table of contents and the index of the texts used, noting the page numbers where the topic is treated. The team should enter page numbers only if the topic is treated in sufficient depth. Textbooks often treat topics so superficially that the text is of little value to teachers and students.

6. Evaluate the results. The alignment committee should review all the work of the teams, noting any problems that need correcting and proposing solutions.

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5. 分析课文(Analyze the texts)。最后的一个步骤，是要确定主要精熟的目标是否呈现在课文中。此一工作小组，应该检索所使用的教科书的内容目录表，注意所处理的主题之页码。该小组应该将课文主题处理深度适宜之处的页码加以登录注记。因为通常教科书都只是肤浅地处理一些主题，因此对教师与学生的参考价值不高。

6. 评鉴结果(Evaluate the results)。课程连结委员会应该检视所有小组的工作，注意任何需要修正的问题，并且将这些检视的结果成成一套完整的资料。对校长与督学而言，这一套资料非常有用。

7. 运用结果(Use the results)。如果光是完成课程连结的图表，其价值不高，还应该运用此一结果完成两项任务。首先，如同底下简要考虑
7. **Use the results.** Simply completing the alignment charts has little value. The results should be used to accomplish two tasks. First, as noted briefly below and explained more fully in Chapters 12 and 13, teachers should use the list of mastery objectives to develop yearly and unit plans that ensure adequate treatment of all the mastery objectives. Mastery objectives that are tested should receive the highest priority in planning for learning; continuing development objectives likely to be tested would have a second priority. Second, the team should institute plans to fill in the gaps in the textbook. They can order supplementary materials or write their own materials.

**Aligning the Written and the Taught Curricula**

The alignment charts described above can be very useful in aligning the written and the taught. Next to aligning the taught and the learned, this is probably the most important alignment of all. Even the most conscientious teachers will need help in ensuring that they are effectively delivering the written curriculum. As explained more fully in Chapters 12 and 13, the principal should help teachers develop yearly calendars and unit plans. In developing such plans, the teacher should systematically check off the mastery objectives as they are scheduled in the yearly calendar and included in the unit. When the principal reviews these plans, he or she should check to ensure that all mastery objectives are in fact included.

**Aligning the Curriculum**

**Aligning the Hidden and the Learned Curricula**

Because the hidden curriculum has such an impact on student learning, it deserves special study by the principal and teachers. The principal may therefore wish to lead a special task force to make a systematic analysis. Here are the main factors that seem to constitute the hidden curriculum:

- **Time allocation.** For example, are health and physical education allocated sufficient time to change the behavior of children and youth?
- **Space allocation.** How much space is allocated for teacher confering and planning?
Aligning the Curriculum

Aligning the Hidden and the Learned Curricula

- **Space allocation.** How much space is allocated for teacher conferencing and planning?
- **Use of discretionary funds.** Who decides? How are such funds expended?
- **Student discipline.** Do suspensions seem to reflect an ethnic bias?
- **Physical appearance.** Does the appearance of facilities suggest that those in the building care for the school? Are walls decorated with student artwork?
- **Student activities program.** Does this program reflect and respond to student talent diversity?
- **Communication.** Are most of the messages over the public address system of a positive nature? How often are student voices heard?
- **Power.** Do teachers have power in the decision-making process? Do students have any real power over the factors that matter?

When the analysis of the hidden curriculum has been completed, the principal and the teachers should identify those hidden messages that do not reflect what they want students to learn—and then work together to alter discrepant elements. For example, if the principal and teachers believe in the importance of students’ artistic creativity but discover that the hidden curriculum reveals no traces of creativity, they might want to change the hidden curriculum by decorating the corridors with student artwork.

Aligning the Taught and the Learned Curricula

The final and perhaps most important type of alignment involves the taught and the learned curriculum. Whereas teachers mistakenly assume that students learn all that they are taught, the evidence is otherwise. As Doyle (1986) points out in his review of the research, for much of classroom time

当校长与教师已经完成潜在课程的分析时，则可以明确指出有哪些并非他们要求学生学习的潜在信息，进而一起努力以改变这些造成差异的因素。举例而言，如果校长与教师们相信学生更富有创造性但是却发现没有任何迹象显示其重视艺术创作的潜在课程，则校长和教师就可以试着在走廊上布置学生的艺术作品，而借以改变此项潜在课程。

连结“施教类课程”与“习得类课程”

最后，而且可能是最重要的，就是连结“施教类课程”与“习得类课程”。当教师错误地假设学生学到了教师教导的全部内容，但是证据却往往显示与事实不符，就如同 Doyle(1986)在其研究概览中，指出学生在教室中的大部分时间，要么是明显地心不在焉，便是假装认真工作，
students are either obviously off-task or feigning on-task behavior, only dimly aware of what the teacher is trying to teach.

This issue is so important that the principal and the teachers should discuss it in a faculty meeting or special workshop that would answer four questions: What is the taught/learnt gap, and why is it important? What student factors cause it? What can teachers do to reduce the gap? What next steps should we take?

Nature and Importance of the Gap

The session should begin with an open dialog about the gap at their school. A simple definition should be helpful: “Students do not learn all that teachers teach. We call that the taught/learnt gap.” A brief discussion of its importance can follow.

Student Factors

The next part of the discussion is to examine the student factors that cause the taught/learnt gap. Both the research and this author’s experience indicate that the following elements are crucial.

First, students have limited attention spans. They have other agendas. The teacher may be doing his or her best to teach the parts of the amoeba, but student minds are on the weekend activities. All that television watching has conditioned them to expect one-minute messages. The physical environment may cause inattention. If the room is too warm, students will find it difficult to focus on a complex task.

Students may also lack knowledge and cognitive development. They are doing the best they can, but what they are hearing does not make sense. The terms are too difficult; the new knowledge is overwhelming. Students also may have special needs that are not being addressed. Even though they may not have obvious disabilities, they may have learning problems that interfere with their learning.

Peer pressure may also interfere with the learning process. This factor has a negative impact especially on economically disadvantaged minority students. They may want to learn, but a few powerful peers can establish norms that devalue learning.
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Teacher-Facilitating Factors

In an atmosphere of inquiry, with teachers discussing their experience, the faculty should next analyze what seems to work. This discussion should have a positive tone so that teachers do not feel they are being blamed. These productive factors are the ones that will probably be identified:

1. Clarify the objective.
2. Help students find meaning and purpose in learning the objective.
3. Encourage students to ask questions.
4. Use learning strategies that require a high level of student activity.
5. Use frequent quizzesing to monitor learning and maintain high alertness.
6. Observe for verbal and nonverbal signs of off-task behavior.
7. Use monitoring data to adjust instruction.

The workshop should end with a discussion of what can be done to determine how much of a gap exists and what can be done to reduce it. The following process should be useful:

1. Teachers pair off or work in collegial teams.
2. Teacher A plans a lesson with the help of Teacher B; they also prepare a comprehensive quiz based on that lesson.
3. Teacher A implements the lesson, while Teacher B observes both student and teacher behavior.
4. Teacher A administers the quiz at the end of the lesson.
5. They meet to discuss the results.
6. They then switch roles.

教师的因素

我们应该让教师有机会聚在一起，在一种探究的气氛当中分享他们的经验。接下来，教师同仁应该要认真分析哪些教学方法会发生积极的效用。这样的讨论，应该在一种积极的气氛之下进行，才不会让教师觉得窘困。以下所述的就是具有正面效果的教法。

1. 帘清目标；
2. 协助学生从学习目标中，理解学习的意义与目的；
3. 鼓励学生提问；
4. 运用要求高度参与学生活动的作策略；
5. 经常利用平时考来监控学生的学习与维持其高度警觉；
6. 观察学生的语言与非语言的分心行为；
7. 利用监控资源，以调整教学。

举办教师工作坊时，应该以进行有关可以做什么，以确认所存在的差距有多大，以及应该采取什么作法来缩短此一差距等疑的讨论作为结尾。下列的历程，应该是相当有用的。

1. 教师进行配对分组，或以团队小组方式进行工作。
2. 甲教师由乙教师的协助，共同规划一堂课，同时他们也为这一堂而共同规划一项综合的平时测验考试。
3. 甲教师上这堂课，而由乙教师同时观察学生与教师双方的行为。
4. 甲教师在这堂课结束时，执行该项平时测验考试。
5. 他们一起开会讨论这堂课的情形。
6. 然后甲乙两位教师互换角色，重新来过。


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参考文献


