

140 Chapter 5 • Curriculum Development in Schools

often “colors” the curriculum. This emphasis at the classroom level either reinforces or detracts from the general plan. Because values are at the heart of all curricula, it is very important for the teacher to understand and be committed to the avowed purpose of the plan.

Adoption of the curriculum at the classroom level can be seen as a six-step cycle of instructional delivery:

1. Determine teaching tasks and student outcomes.
2. Match objectives to student abilities.
3. Design the instructional process.
4. Deliver the planned curriculum.
5. Use feedback to analyze curriculum and instruction.
6. Adjust instructional delivery.

In the first step, the teacher must arrive at an understanding of the teaching tasks, including any mandated (state standards or Common Core) student outcomes. Having extracted these critical measures of purpose, the teacher views the planning process as something of a distance-rate-time problem: Can I get students to master these objectives by the end of the semester?

The tools a teacher uses at this stage include textbooks, teacher guides, curriculum maps or outlines, and teaching standards. In some school districts, it is assumed that the teacher will conduct such an assessment. In better schools, this act of “talking through” the curriculum is a planned process in which all teachers understand their part and the role of others in meeting the student learning objectives.

A second step at the classroom level is to attempt to match these expectations with the capacity of the students being taught. Concerning the difference in academic achievement, a rough rule of thumb is that for each year in school, there is a year of range. This means that a fourth-grade teacher must accommodate a 4-year range of achievement, maturation, and native ability in planning. This rule applies until high school (a 9-year range in the ninth grade) and trails off as students drop out of school.

By questioning student ability, background, and motivation, the teacher may begin to adjust the planned curriculum in significant ways. At this point, understanding the *intent* of the curriculum (for orientation, or mastery, or application) is very important. What is the meaning of learning about the Treaty of Ghent, the periodic table, or pi? Why do we teach these things? What do we expect the student to do with these things?

In the third stage, the teacher becomes a designer of the instructional process. Here, experience and professional knowledge are essential to decision making. Most teachers learn by trial and error, and experience gives insight about what works under certain circumstances. Teachers become “professionals” when they discover that research can provide useful guidance in this process beyond their own experience. Education has a rich literature and an extensive research base that can be used by teachers who understand this designing function. For example, what does the socioeconomic composition of the class have to do with school success?

Of course, any experienced teacher knows that different students require different strategies. Individual strategies for students are a noble goal, but as long as the teacher is assigned 35 students, these strategies must be global (workbooks, reading groups) rather than individualized. For 50 years, teachers in American schools have

labored to meet the needs of individual students without having the sheer physical ability to do so.

In the fourth step of this planning process, the teacher delivers the planned curriculum at the classroom level. In making minute-to-minute adjustments and confronting some of more than 3,500 classroom variables, the possibilities for distortion of the intended curriculum are numerous. The elements of time, space, materials, and media are woven together according to the perceptions of the teacher who sees the class much in the same manner as a conductor sees an orchestra. The key to success in this stage is organization. The exemplary teacher has a plan, a contingency plan, materials, equipment, and an understanding of the purpose of the lesson when she or he enters the classroom. Corrections or improvisations as conditions warrant during the school day are the elements of the art of teaching. Figure 5.10 identifies some of the options open to the teacher who understands this art.

The fifth phase of the traditional teaching act is a *feedback* phase. Here, the teacher weighs the appropriateness of both the planned curriculum and the delivered instruction and makes adjustments for future teaching episodes. Without this assessment step, teaching never changes.

1. *Comparative analysis.* A thought process, structured by the teacher, that employs the description, classification, and analysis of more than one system, group, or the like in order to ascertain and evaluate similarities and differences.
2. *Conference.* A one-to-one interaction between teacher and learner in which the learner's needs and problems can be dealt with. Diagnosis, evaluation, and prescription may all be involved.
3. *Demonstration.* An activity in which the teacher or another person uses examples, experiments, or other actual performance, or a combination of these, to illustrate a principle or show others how to do something.
4. *Diagnosis.* The continuous determination of the nature of learning difficulties and deficiencies, used in teaching as a basis for the selection, day by day or moment by moment, of appropriate content and methods of instruction.
5. *Direct observation.* Guided observation provided for the purpose of improving the study, understanding, and evaluation of that which is observed.
6. *Discussion.* An activity in which pupils, under teacher or pupil direction, or both, exchange points of view concerning a topic, question, or problem to arrive at a decision or conclusion.
7. *Drill.* An orderly, repetitive learning activity intended to help develop or fix a specific skill or aspect of knowledge.
8. *Experimentation.* An activity involving a planned procedure accompanied by either the control of conditions or a controlled variation of conditions, or both, together with observation of results for the purpose of discovering relationships and evaluating the reasonableness of a specific hypothesis.
9. *Field experience.* Educational work experience, sometimes fully paid, acquired by pupils in a practical service situation.
10. *Field trip.* An educational trip to places where pupils can study the content of instruction directly in its functional setting, for example, factory, newspaper office, or fire department.

FIGURE 5.10 Method Options for Instruction.

142 Chapter 5 • Curriculum Development in Schools

11. *Group work.* A process in which members of the class work cooperatively rather than individually to formulate and work toward common objectives under the guidance of one or more leaders.
12. *Laboratory experience.* Learning activities carried on by pupils in a laboratory designed for individual or group study of a particular subject-matter area, involving the practical application of theory through observation, experimentation, and research, or, in the case of foreign language instruction, involving learning through demonstration, drill, and practice. This applies also to the study of art and music, although such activity in this instance may be referred to as a *studio experience*.
13. *Lecture.* An activity in which the teacher gives an oral presentation of facts or principles, the class frequently being responsible for note taking. This activity usually involves little or no pupil participation by questioning or discussion.
14. *Manipulative and tactile activity.* Activity by which pupils use the movement of various muscles and the sense of touch to develop manipulative or perceptual skills, or both.
15. *Modeling and imitation.* An activity frequently used for instruction in speech, in which the pupils listen to and observe a model as a basis upon which to practice and improve their performance.
16. *Problem solving.* A thought process structured by the teacher and employed by the pupils for clearly defining a problem, forming hypothetical solutions, and possibly testing the hypothesis.
17. *Programmed instruction.* Instruction using a workbook together with either a mechanical or electronic device, or both, which has been programmed by (a) providing instruction in small steps and (b) asking one or more questions about each step in the instruction and providing instant feedback if the answer is right or wrong.
18. *Computer-assisted instruction.* An activity in which software programs provide students with practice in key skill areas or are used to search for further information about selected topics.

FIGURE 5.10 (Continued)

In most states, students are given standardized tests that reflect how well they have mastered predetermined skills and objectives. Content mastery from prescribed textbooks would be another possible measure of student learning. Student performance on a task is another possible measure of learning. It is important for the teacher to view teaching as a purposeful act; teaching is about students learning rather than teachers talking. The successful teacher has a way of documenting such progress, including a gradebook, portfolios, test scores on standardized tests, and other student applications. In the best districts, these "proofs" of student learning are passed on from year-to-year in a cumulative folder as the student progresses.

A final phase in instructional design is the act of redesigning the way a curriculum is delivered. A teacher's ability to reflect on and make mature adjustments in teaching behaviors depends on that teacher's intrinsic motivation. Professionalism, knowledge, and pride drive even the 20-year veteran teacher to seek new skills (staff development) and materials to be more effective. This professional assessment, of course, begins the cycle once again.

In addition to this cycle, teachers must possess a way of thinking about learning to be effective in the classroom. Teachers who have not conceptualized an approach to the

1. Is the room prepared? Is furniture arranged to promote desired learning? Is the environment conducive to what I intend to teach?
2. Do I have a plan for getting students into the room and settled in their seats?
3. Have I thought of a "motivational opener" to make the transition from the last class they attended to this one?
4. Can I give the students a preview (advanced organizers) of what we'll be doing during the period so they'll know what to expect?
5. Have I estimated the time required for each activity this period?
6. Are the major concepts for this lesson covered by my planned activities?
7. Are the essential facts I want taught in the materials to be used?
8. Have I planned for the appropriate level of affect desired?
9. Have I planned to allow each student to participate at an appropriate level of learning?
10. Are the necessary and appropriate materials present in the room?
11. Do I have a plan for discussion? Have I clarified what kind of discussion will contribute to the lesson objectives?
12. Have I planned for relevance? Do I have some real-life examples?
13. Have I considered handout procedures and steps for collecting homework?
14. How will I involve special students in this lesson?
15. What is my plan for grouping? What directions will I give?
16. Do I have a plan for possible deviant behavior today?
17. Do I want to emphasize a certain format/standards for today's homework or assignment?
18. What kind of test questions would I ask about today's material? Do I want to share these expectations with students?
19. What kind of a technique will I use for closure of today's class?
20. What is my procedure for dismissal of the class?

FIGURE 5.11 Twenty Questions Before Teaching.

teaching-learning act often present an unclear instructional pattern to their students, thereby causing students to fail in the achievement of intended outcomes. Teachers in the preparatory phase may want to ask themselves the following questions (also see Figure 5.11):

1. ***What am I expected to teach?*** On arrival in any classroom, the teacher will be confronted with materials and equipment thought to be generically valuable for any occasion: texts, soft-sided instructional supplements, perhaps projection devices (overhead projectors), and (it is hoped) computers and software. Better school districts will offer detailed curriculum maps or frameworks and guides to instructional resources indicating a degree of specificity for the instructional process. Because teaching is perceived in the traditional model as the delivery of the curriculum, the absence of these items is certainly cause for alarm.