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1 What It Means to Be a Curriculum Leader

Prin cip als can best discharge their leadership role if they develop a deep and broad knowledge base with respect to curriculum. This chapter aids in that process by first reviewing current trends in curricula and then summarizing the research on curricular quality.

Current Trends in Curricula

It is sometimes difficult to distinguish significant trends that are likely to be influential for several years from passing fads that will soon disappear. However, a review of the past history of the field and an analysis of the current literature suggest that the following developments are likely to be influential in the first decade of the 21st century.

Increasing Importance of National and State Standards

At the time of this writing, there was still considerable debate about the desirability of standards at the national level. However, the continuing

dissatisfaction with the public schools expressed in the national media probably will place pressure on Congress to develop policies that will effect some standardization while still giving primary authority to the states. In a well-balanced analysis, Smith, Fuhrman, and O'Day (1994) summarize the pros and cons of national standards. They cite several advantages claimed by advocates of national standards: Such standards will ensure that all citizens will have the shared knowledge and values needed to make democracy work; they result in greater efficiency because they provide standards for the 50 states; they encourage state and local boards to raise their standards; they will improve the quality of schooling; and they will ensure a large measure of educational equity. It should also be noted here that there is some evidence from international comparisons that teachers in nations with strong central control of the curriculum reported greater consistency about what should be taught and what they did teach, when compared with teachers in nations with greater local control (Cohen & Spillane, 1992). That variation in consistency is probably one of the factors accounting for international differences in achievement.

However, Smith and colleagues (1994) also note several disadvantages emphasized by the critics of the movement toward a national curriculum: Past experience suggests that such attempts will not be effective; standards tend to become minimum standards that lower the entire system; the development at the national level will draw resources from state and local efforts; they can lead to an excessively restrictive national curriculum that will inhibit local creativity; and standards alone will have no effect on student achievement unless significant resources are provided to local school systems (an unlikely development in a time of attempts to downsize the federal government).

Although there is a debate about national standards, there seems to be a growing consensus on the desirability of state standards. A survey by Pechman and Laguarda (1993) indicated that 45 states had developed or were developing curriculum frameworks. And those frameworks seemed to be moving from very general guidelines to more prescriptive mandates and are typically accompanied by state-developed tests. Smith and colleagues (1994) report that preliminary results from California suggest that "ambitious content standards reinforced by assessment and other policies have the potential to improve schooling" (p. 21). The evidence on teacher attitudes is somewhat inconclusive. Two studies suggest that most teachers have negative attitudes about externally imposed curriculum standards (McNeil, 1986; Rosenholtz, 1987). On the other hand, a study of teachers in six states discovered little evidence that teachers were unhappy with state and district standard setting (Porter, Smithson, & Osthoff, 1994). This finding is supported by more recent research indicat-

ing that the teacher-authors seemed to accept state standards with a sense of grim resignation (Glatthorn & Fontana, in press).

Several experts have noted problems with state standard setting in curriculum (see especially Fuhrman, 1994). The standards are set by state officials who are far removed from local schools and free of the burden of accountability. Curriculum standards are often not supported with other systemic changes, such as new approaches to teacher education. Thus, state initiatives are typically fragmented and often contradictory. And in a time of limited resources and the accompanying downsizing of state staff, most state departments of education do not have the resources to assist local districts in implementing state standards.

This is an appropriate place to clarify some terms used by most of the states in their publications and in this book.

- *Curriculum standards or content standards.* Statements of what the learner is expected to be able to do, in one subject, grades K-12
Example (language arts): Uses the reading process to analyze and understand types of literary texts.
- *Benchmarks.* A more specific component of a standard, usually specified for a particular grade or a grade level
Example (language arts, grades 6-8): Understands the features of myths.
- *Objectives.* A component of a benchmark, usually the focus of a given lesson
Example (language arts, grade 6): Identifies the features of a mythical hero.

What should the principal do about state standards? The practical response is to help teachers accept them as a part of their professional work, noting both the advantages and disadvantages of externally imposed standards.

Movement Toward School-Based Curriculum Development

At the same time there is increased interest in national and state standard setting in curriculum, educators have reported growing interest in school-based curriculum development, as one element of the movement toward school-based management. Most schools reporting successful school-based management programs indicated that teachers used their decision-making authority to change the program of studies by adding new courses (U.S. General Accounting Office, 1994). Although one would

expect that the concurrent interest in schools of choice would result in greater curricular diversity, one study concluded that there were no major differences between the curriculum found in schools of choice and that found in standard schools (Sosniak & Ethington, 1992). Perhaps more diversity in curriculum will be found in the charter school movement, because charter schools are free of state curriculum control.

Greater Influence of Professional Organizations

In previous decades, practitioners did not seem to give much attention to the curriculum recommendations of professional groups such as the National Council of Teachers of English. Those recommendations often seemed too radical, insensitive to the realities of classroom life. In the past 10 years, however, the cry for higher standards seems to have given such recommendations greater credence. Almost all the professional associations representing educators in a particular subject field have published their own curriculum standards.

A systematic compilation of those standards by Kendall and Marzano (1997) indicates that those professional standards, viewed collectively, represent an almost impossible task for curriculum leaders. According to their statistics, a student would have to master three “benchmarks” every week to achieve all the standards set by the professional groups. (A *benchmark* is a grade-specific and subject-specific standard.) Principals should become familiar with professional standards but encourage developers to use them selectively. If the school uses subject-centered teams, the principal should also help team leaders stay current about professional standards.

Continuing Interest in Constructivist Curriculum

Constructivism is a theory of learning based on the principle that learners construct meaning from what they experience; thus, learning is an active, meaning-making process. Though constructivism seems to have made its strongest impact on science and mathematics curricula, leaders in other fields are attempting to embody in curriculum units the following principles.

- The unit should be problem focused, requiring the student to solve open-ended contextualized problems.
- The unit should enable the student to access generative knowledge in solving those problems. Generative knowledge is knowledge that is used in solving problems.

- Learning strategies (such as the use of matrices in organizing information) should be taught in the context of solving problems.
- Throughout the unit, the teacher should provide the necessary scaffolding or structure.
- Much of the learning should occur in cooperative groups, because learning is a social process.
- The unit should conclude by requiring the student to demonstrate learning in some authentic manner.

Chapter 13 provides a detailed explanation of the processes to be used in developing a constructivist unit. Two sources are useful if greater depth is needed: Glatthorn (1994a) and Wiggins and McTighe (1998).

**Development of New Approaches
in Vocational Education**

In the face of drastic changes in the economy, the workplace, and the workforce, forward-looking career educators are moving toward new approaches to curricula. Two developments seem significant.

An Emphasis on Generic Skills

Though almost all career educators see a continuing need to train students in career-specific skills so that they can gain employment after graduation, there is increased interest in so-called generic skills that are not job specific but instead are general transferable skills that can be used in almost any career. Perhaps one of the best formulations of these generic skills is that produced by Stasz, McArthur, Lewis, and Ramsey (1990). Their formulation is shown in Table 1.1. As can be seen by reviewing this list (or any other such list), the intent is to equip all students with skills that will enable them to function in a changing economy and a changing workplace.

*An Emphasis on Integrating Academic
and Career Education*

In an attempt to reduce or eliminate the dysfunctional barriers between academic and career curricula, experts in the field are attempting to bring about a greater integration of the two. Eight models of integration have been identified by Grubb, Davis, and Lum (1991); the seven most frequently used models are described briefly in the following.

TABLE 1.1 Generic Skills for a Changing Workplace

Basic skills
Reading with comprehension and critical judgment
Writing clearly and effectively
Mastering mathematical computations
Performing practical life skills (such as reading a schedule or filling out an application)
Learning how to learn
Complex reasoning and information-processing skills (presented as a problem-solving process)
Recognizing a problem
Analyzing that problem
Generating solution paths
Evaluating solution paths and monitoring implementation
Repairing: using alternative actions
Reflecting: about the process and the solution
Attitudes and dispositions
Ability to make decisions
Willingness to take responsibility for one's decisions
Willingness to be bold in decision making
Learning the parameters of the workplace
Cooperating with others

SOURCE: Adapted and paraphrased from Stasz, McArthur, Lewis, and Ramsey (1990).

1. *Incorporating more academic content in career courses.* Career instructors incorporate into their courses such academic content as reading, writing, science, and mathematics. This has always been done informally by career teachers; there is current interest in developing more systematic models.
2. *Combining career and academic teachers on a teaching team.* In some area career schools, one math teacher and one English teacher will join a team of career teachers, presenting special lessons, working with individual students in a pull-out remedial program, teaching an applied class, and developing materials for the career teachers that reinforce related academic skills.

3. *Making the academic curriculum more career relevant.* Academic teachers incorporate career applications wherever desirable: reading literature about work, using job-related writing exercises, using job-related examples from occupational areas. In some cases this approach is more formalized in the development and implementation of so-called applied academics courses. Three of the most widely used are Principles of Technology (an applied physics course), Applied Mathematics, and Applied Communication. New courses in applied chemistry, applied biology, and materials science and technology are being developed.

4. *Aligning the curricula.* This approach coordinates or aligns closely the content of the career courses and the academic courses; the links between the two fields are strengthened and more clearly delineated. Some use “bridge” assignments that require the student to complete a project that integrates career and academic knowledge.

5. *Using the senior project as a form of integration.* Some schools are using the senior project as a form of integration. In one school, for example, the student’s project consists of a written report, a physical representation of some sort (usually completed in the vocational shop), and an oral presentation.

6. *Developing an “academy” model.* Academies usually operate as schools-within-schools. Usually, four teachers collaborate in an academy—one in math, one in English, one in science, and one in the career specialty that is the core of the academy (such as electronics). Other subjects are taken in the regular high school as electives. The teachers work with each other and a single group of students over a multiyear period. The academies establish close ties with local businesses and industries.

7. *Developing occupational high schools and magnet schools.* These magnet schools are similar to the academy, except that they are schoolwide. Examples are Aviation High School in New York and the High School for Health Professions in Houston.

Rather than worrying whether they have the “right” kind of program, principals should evaluate their own programs against the following criteria:

- Does the program of studies open doors for all students, not limit opportunities? In too many cases, obsolete vocational programs did not include the academic subjects required for college admissions.
- Do all students have access to reliable career counseling? In many situations, the counseling is not timely, with students being required to make a program choice in grade 9, when such choices are very unstable.
- Do school administrators and teachers make it clear that there are no second-class programs? They should scrupulously avoid making disparaging comments about vocational education but accord the same respect as they do to academic programs.

Development of Integrated Curricula

Educators seem especially interested in the development and use of curriculum integration as a means of increasing student interest and student knowledge (see Beane, 1995, for a current review). Though the concept of curriculum integration is used to mean a variety of approaches, it is used here to denote the development of curriculum units that combine content from two or more disciplines. Though the research generally supports the use of integrated curricula, some problems are associated with their use (see Chapter 9 for a fuller discussion of the research here). For that reason it is recommended that each school decide to what extent and in what ways it will integrate its curriculum. Chapter 9 suggests a process for making that decision.

Institutionalization of Technology

Some educators continue to question the extensive use of the computer and other technological aids (see, for example, Apple, 1988). However, the use of the computer to manage the curriculum and to facilitate student learning is by this time so widely accepted by schools that the issue is moot. Except for the critics of technology, there is general agreement among educators that the use of sophisticated technology will continue to increase in the schools. (For a recent report, see Baker, 1999.)

The Hallmarks of Curriculum Quality

What constitutes a quality curriculum? In one sense, the question cannot be answered empirically because the question deals so much with values. If

principals believe that a narrowly focused curriculum that deals only with the “basics” is most desirable, they will argue for the merits of such a curriculum. On the other hand, if they believe in a comprehensive curriculum that deals broadly with life-related issues, they will advocate that approach. Such a division cannot be reconciled by turning to the research.

If that value issue is put aside, several guidelines for developing a quality curriculum are supported by sound research.

1. *Structure the curriculum so that it results in greater depth and less superficial coverage.* Several studies conclude that focusing in depth on a smaller number of skills and concepts will lead to greater understanding and retention and will also be more supportive of efforts to teach problem solving and critical thinking (e.g., Brophy, 1990; Knapp & Associates, 1991; McDonnell, 1989).

2. *Structure the curriculum so that it focuses on problem solving.* Though the initial interest in critical thinking led many innovators to teach isolated “thinking skills,” the research in cognitive psychology indicates clearly that such skills are better learned and retained when they are embedded in problem-solving units that deal with complex meaningful problems, situated in a context. (For more detailed discussion of this issue, see the volume edited by Resnick & Klopfer, 1989.)

3. *Structure and deliver the curriculum so that it facilitates the mastery of essential skills and knowledge of the subjects.* For many years, educators foolishly argued about the primacy of content and process. Recent advances in cognitive psychology indicate clearly that such a dichotomy is dysfunctional. Students can solve complex problems in science, for example, only when they have a deep knowledge base; but that knowledge base must become generative, not inert, when it is actively processed and used in solving meaningful problems (see Minstrell, 1989).

4. *Structure the curriculum so that it is closely coordinated.* Several types of coordination seem important: coordination of content, from grades K-12; coordination of the curriculum for one subject, from September to June; coordination within a unit, so that Lesson 3 builds on Lessons 1 and 2 and leads to Lesson 4; and coordination between two related subjects, such as science and mathematics (Cotton, 1995).

5. *Organize the curriculum so that it provides for multiyear sequential study, not “stand-alone” courses.* Though there may be some value in offering stand-alone courses for enrichment purposes at all levels, McDonnell’s (1989) research stresses that multiyear sequential curricula will have greater payoff than single fragmented courses.

6. *Emphasize both the academic and the practical.* Johnson (1989) makes this point about the science curriculum: “Generating concepts in the mind . . . should be related where possible to familiar experiences. Experience is the application of understanding” (p. 9). This linking of the academic and the applied should occur throughout the curriculum, not just in “tech prep” courses.

7. *Develop effective integrated curricula.* As noted above, the extent and nature of such integration should be resolved at the school level.

8. *Focus on the mastery of a limited number of essential curriculum objectives rather than trying to cover too many* (Cotton, 1995). Distinguish between those objectives that require specific grade placement, explicit teaching, and systematic assessment and those that should be nurtured on every suitable occasion (Glatthorn, 1994b) (see Chapter 5 for fuller detail here).

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