Curriculum integration has long been proposed as a way of organizing the "common learnings" or life skills considered essential for all citizens in a democracy. Curriculum is organized around real-life problems and issues significant to both young people and adults, applying pertinent content and skills from many subject areas or disciplines. The intent is to help students make sense out of their life experiences and learn how to participate in a democracy (Beane, 1997).

The last decade of the 20th century witnessed considerable interest in curriculum integration, especially at the middle level. Paradoxically, at the same time, schools were being subjected to increasing pressure for "accountability" and for "standards-based reform." These demands have been accompanied by high-stakes testing, a standardized, subject-centered curriculum, and sometimes even scripted teaching lessons. This trend continues today. How can curriculum integration survive under such circumstances, since it is clearly at odds with many of the teaching and testing methods that have been advocated within the standards-based reform movement?

This Digest suggests how middle level schools can, at the same time, reap both the benefits of genuine student-centered, integrative curriculum and instruction (Beane, 1993, 1997) and also develop student competencies in state-mandated standards so that students can make acceptable scores on typical standards-based tests. The Digest also identifies some sources of "integrative standards" and cites research on student academic achievement in various types of integrative programs that may provide some reassurance for today's educators.

STANDARDS-BASED CURRICULUM INTEGRATION

One deterrent to curriculum integration is the fact that most state standards and proficiency tests are set up in terms of conventional subject areas, such as reading, mathematics, science, or social studies. Another huge problem is the sheer number of competencies specified in the standards. One research team estimates that it would take even a very competent student nine additional years in school to reach acceptable performance in all of the standards recommended by national organizations! Why not just ignore the standards and focus instead on facts and skills that are most likely to be on the state tests? Drilling students on these sample questions may raise students' test scores a bit, but this approach hardly qualifies as education and is guaranteed to make school and learning even more distasteful to students than it is to many today.

Fortunately, three educational "think tanks" have compiled lists of "generic" competencies that cut across discipline and subject lines. Integrative curriculum should emphasize these "common learnings" or life skills.
1. "Schoolwide Goals for Student Learning" (NSSE and ACR). One carefully designed set of common learnings has been developed by the National Study of School Evaluation (NSSE) and the Alliance for Curriculum Reform (ACR) (Fitzpatrick, 1997). They examined the proposals of the various academic professional organizations and identified goals that are common across several specific subject standards. Those common learnings, called "Schoolwide Goals for Student Learning," are divided into (1) Learning-to-Learn Skills, (2) Expanding and Integrating Knowledge, (3) Communication Skills, (4) Thinking and Reasoning Skills, (5) Interpersonal Skills, and (6) Personal and Social Responsibility.

Rubrics suggested for evaluating student performance in each of these areas are stated in general terms. However, their examples of "Performance Indicators" are "Discipline-Based," as are the Program Evaluation Guides used for evaluating specific school programs or services. Thus, the structure of the handbooks may handicap schools in their efforts to make sure "that their instructional and assessment efforts contribute to a coherent curriculum" (Fitzpatrick, 1997, p. xi).

2. "Core Standards" (CORD). An even more comprehensive approach has been used by the Center for Occupational Research and Development (CORD) in Waco, Texas (Edling & Loring, 1996). CORD identified common learnings embedded in standards proposed by both academic organizations and also by groups advocating "workforce education" (businesses, industries, and vocational educators) and created a database of 38 sets of proposed standards. From these, they pulled out 53 "Core" standards that describe a broad array of competencies, from "general housekeeping" to statistical analysis and computer literacy to ethics and self-concept.

What CORD calls Integrated Standards also have been generated for various occupational fields such as business, engineering, the arts, and service. Field tests of this approach to both common learnings and integrated curriculum are going on in 12 states, and 14 curriculum packages are being developed to help school personnel implement the process (Edling & Loring, 1996).

3. "Life Skills" (McREL). Researchers at Mid-continent Research for Education and Learning (McREL), a regional educational research center in Aurora, Colorado, also began their search for "essential knowledge" by building a standards database incorporating 116 national standards documents in 14 content areas (Kendall & Marzano, 1999). In the process, they identified a set of "life skills," which they described as "a category of knowledge that is useful across content areas as well as important for
the world of work" in four areas: (1) Thinking and Reasoning, (2) Working with Others, (3) Self-Regulation, and (4) Life Work. Note the similarity to the "Schoolwide Goals" of NSSE/ACR and the "Integrated Standards" of CORD.

Any set of these standards-based common learnings or, better yet, a composite of all three would provide a much-needed focus in curriculum planning at all levels and could be especially important in designing integrative curriculum. Some providers of teaching materials are beginning to get the message. For example, the Performance Indicators available from Sunburst Technology include a "General" collection dealing with collaborative lifelong learning, class participation, work habits, and problem solving.

**USING STANDARDS IN CURRICULUM INTEGRATION**

Teachers may deal with standards before, during, or after engaging students in planning learning experiences focused on their personal and social concerns. Core teachers sometimes "back-map" a completed unit to show students and parents where they had been dealing with content and skills typically taught in separate courses. This sort of "after-the-fact accountability" is even more essential today (see Brodhagen, 1995). Identifying and labeling the standards and competencies included in a unit not only provide evidence that standards are being addressed but also may reveal competencies that merit further attention in succeeding units.

Teachers are ultimately responsible for what is taught, but they should not have to bear the entire standards burden. A much better approach is to invite students to join with them to make sure that mandated competencies are addressed. When students understand the standards that are to be met during any particular year, they can suggest many creative ways to address them within units focused on their personal and social concerns. As long as the number is not excessive, posting the major standards in the classroom is a good reminder for both teachers and students.

Inviting students to help in the process gives them excellent opportunities to develop critical thinking, demonstrates that their ideas are valued, and helps them to see that education is a matter of serious concern for our entire society. Perhaps if more people had gained this kind of insight while still in school, there would be more support for the schools today!

**RESEARCH ON THE EFFECTIVENESS OF INTEGRATIVE CURRICULUM**

It is still too early to obtain reliable data on how students in integrative programs fare on state proficiency tests. However, recent analyses of studies (National Association for Core Curriculum, 2000; Vars, 1996, 1997; Arhar, 1997) point to the same general
conclusion: Almost without exception, students in any type of interdisciplinary or integrative curriculum do as well as, and often better than, students in a conventional departmentalized program. These results hold whether the combined curriculum is taught by one teacher in a self-contained or block-time class or by an interdisciplinary team.

For the most part, these results were obtained using standardized achievement tests designed for a conventional separate-subjects program. Most standardized tests are normed- scores of individual students are compared with the mean or average of whatever group is considered "normal." In contrast, current state tests may have arbitrary cut-off scores that all students must meet in order to "pass" or be considered "competent." In other words, the rules of the assessment game have been changed radically. Furthermore, the quality of many statewide assessment measures has been widely criticized, raising serious questions about the morality of using them to determine a student's grade promotion or high school graduation.

It will probably be many years before problems in the assessment of student performance are solved. In the meantime, educators considering curriculum integration will need to proceed carefully and take full advantage of the decades of research and experience with this potentially powerful way of designing and carrying out education (Vars, 1993; Beane, 1997). It also is important to keep all stakeholders—students, teachers, families, and the general public—both informed and involved in continuing efforts to provide every student with meaningful learning experiences.

CONCLUSION

Integrative curriculum in the new millennium will have to deal with societal expectations, as spelled out in standards and state tests, while still giving primary emphasis to student needs, problems, and concerns. Using any of the standards-based formulations of common learnings can make societal expectations more manageable. Then students can be invited to share in addressing those expectations as they and their teachers plan learning experiences.

FOR MORE INFORMATION


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References identified with an ED (ERIC document), EJ (ERIC journal), or PS number are cited in the ERIC database. Most documents are available in ERIC microfiche collections at more than 900 locations worldwide, and can be ordered through EDRS: (800) 443-ERIC. Journal articles are available from the original journal, interlibrary loan services, or article reproduction clearinghouses such as UnCover (800-787-7979) or ISI (800-523-1850).