Toward a Connected Core Curriculum

by William G. Wraga

"Since this is social studies, spelling doesn't count, right?"

On one level, this query from a tenth-grade student is a humorous and hopefully only half-serious ploy to make her academic life a bit easier. But on another level, it may also be a small but telling indication that the way we organize the high school curriculum signals students about the relationships—or the lack thereof—between and among the subjects in the core academic curriculum.

One shortcoming of the academic curriculum is its tendency to emphasize the integrity of the separate subjects and to neglect, even ignore, connections between and among subjects as well as between students' academic experiences and those beyond school. Unfortunately, evidence indicates that recent high school students, who have completed more academic subjects than their predecessors, increasingly view academic schoolwork as less interesting, less meaningful, and less likely to be useful later in life. This trend points to the imperative of providing students opportunities in the core curriculum to connect their experiences between and among the separate subjects and to connect their academic experiences to life beyond school.

These kinds of connections can be achieved through planned opportunities to integrate and apply subject matter. This article summarizes major rationales for, approaches to, and resources about creating a more-connected core curriculum. But first, let us look more closely at the subject-centered curriculum.

The Disconnected Subject-centered Curriculum

Historically, the subject-centered curriculum has emphasized the specialized knowledge contained in each academic subject. It is important to remember that the academic subjects were developed

to discover knowledge, not to disseminate it. Proposals for the separate subject curriculum occasionally pay lip service to subject interrelatedness and to application of subject matter (e.g., NEA 1893; Harvard Committee 1945; Conant 1959); yet because such proposals are often intended to align the high school curriculum with college-entrance requirements, the subject-centered curriculum tends to neglect natural and logical connections between and among the separate subjects and between the subjects and life outside school.

Recent reform efforts have continued to extol the separate subject curriculum. From the National Commission on Excellence in Education's (1983) call in *A Nation At Risk* for all students to complete the five "new basics," to the national educational goal of *America 2000* (1991) to improve academic achievement, the separate subject curriculum has dominated reformers' thinking about secondary education for the past quarter-century. The conception of the high school curriculum as a collection of discrete academic subjects is nowhere more apparent, perhaps, than in the No Child Left Behind Act (2001), which called for "challenging academic content standards" (p. 1444) and unequivocally stated that "'core academic subjects' means English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography" (p. 1958).

By extolling the separate subject curriculum, these reform efforts have at best diverted attention from connections between and among subjects; at worst, they have perhaps aggravated the fragmentation of the high school curriculum, which has traditionally been dominated by separate subject organization. Moreover, increased use of subject-specific high-stakes tests in the name of accountability tends to reduce academic subject matter to splinters of "measurable" information, thus further fragmenting the curriculum—and students' understanding of the world (Madaus and Kelleghan 1992). In this testing environment, students no longer study subject matter as an end in itself, but for the narrower end of passing a test.

The cumulative message these circumstances send to students is that school's purpose is to study discrete academic subjects, deploy discrete bits of information, and pass tests. Connections between and among subjects and between academic subjects and students' lives beyond school simply count less than performance on standardized exams of academic achievement.

More is less

Indirect evidence of this message's impact can perhaps be found in a correlation between two sets of national data pertaining

to high school graduates. A recent report from the National Center for Education Statistics, "Special Analysis 2007: High School Coursetaking," observed: "From the early 1980s, when states began to increase the number of courses required to receive a high school diploma, the average number of credits earned by high school graduates increased from 21.7 credits in 1982 to 25.8 credits in 2004" (NCES 2007). The analysis indicates that these increases occurred in academic courses; during the same period, enrollment in vocational courses declined.

At the same time, however, high school seniors increasingly considered their academic studies less interesting, meaningful, and useful beyond school than had previous students. An annual survey of twelfth-graders conducted by the Survey Research Center at the University of Michigan's Institute for Social Research (NCES 2004; Johnston et al. 2005) documents these trends. When asked in 1983 "how interesting most courses are," 34.6 percent of seniors responded "quite or very interesting" and 19.8 percent responded "very or slightly dull"; in 2005, 21.2 percent responded "quite or very interesting" and 33.3 percent responded "very or slightly dull."

Similarly, asked in 1983 "how often schoolwork is meaningful," 40.2 percent of seniors responded "often or always" and 18.3 percent responded "seldom or never"; in 2005, 27.5 percent responded "often or always" and 28.2 percent responded "seldom or never." Asked in 1983 "how important school learning will be later in life," 50.5 percent responded "quite or very important" and 19.9 percent responded "not or slightly important"; in 2005, 37.1 percent responded "quite or very important" and 28.8 percent responded "not or slightly important." Although these data cannot be tied directly to an increasingly fragmented curriculum, they reveal that increased course taking in the "core academic subjects" and increased high-stakes testing have been accompanied by students' declining regard for the curriculum. This decline is dramatic: imagine the reaction that would result from similar drops nationally in, for example, average NAEP or SAT scores.

The academic core, by isolating subjects from one another and subject matter from students' lives beyond school, tends to make the high school curriculum more, well, academic—that is, in the unfavorable sense of having little connection to or bearing upon practical realities. High school seniors certainly seem to have that impression. Yet continued calls for increasing students' academic course loads (e.g., ACT 2005) almost invariably ignore the disconnection of the subjects, as well as of the curriculum and life beyond school, that typically characterizes the academic core curriculum.

Any increase in course loads in separate subjects should warrant corresponding and increased attention to appropriate connections between and among these subjects—put another way, to connections between and among students' experiences with different parts of the curriculum—as well as to connections between the curriculum and students' life beyond school. High schools need to provide students with a better-connected curriculum experience.

Organizing a Connected Core

Curriculum development typically devotes more attention to the relationships between the same subject on different grade levels than to connections between different subjects on the same grade level. The scope and sequence of the English curriculum, for example, tends to be more concerned with how skills learned in, say, the ninth grade prepare students for tenth-grade English than with how they make connections between ninth-grade English and ninth-grade social studies.

Historically, attending to the relationship between ninth-grade and tenth-grade English has been referred to as *vertical articulation*

of curriculum, while attending to connections between English and social studies on the same grade level has been called *horizontal articulation* of curriculum. (The relationship between tenth-grade math and eleventh-grade science might be called *diagonal articulation,* to coin a term.) Whatever the terminology, relationships from grade level to grade level within subjects in the subject-centered curriculum have typically received more attention than connections between and among subjects on the same grade level.

Three rationales for interdisciplinarity

Three rationales speak to the importance of horizontal curriculum articulation:

- The first rationale holds that because few educational experiences tend to affect learners profoundly, attention to the connections between and among students' experiences in the curriculum, both vertically and horizontally, should ensure that all experiences are complementary; they will thus foster the cumulative impact of all learning experiences (Tyler 1949).
- The second rationale recognizes the reality that experience is integrated; the school should enable students to understand the complex interrelatedness of experience (Tanner and Tanner 2007, chapter 10).
- The third rationale holds that social problems and issues transcend disciplinary boundaries and that a major purpose of public schooling is preparing enlightened citizens who can make intelligent decisions about public problems; the curriculum, then, must provide opportunities for students to integrate and apply subject knowledge so they can understand and confront complex social problems (Wraga 1993).

Given these three rationales, it is difficult to justify inattention to connections between and among separate subjects in the secondary curriculum.

Three approaches to interdisciplinarity

In the past century, educators have developed at least three approaches to connecting separate subjects so that students' experiences are less fragmented and more coherent. These approaches are referred to as the *correlated curriculum;* the *fused curriculum;* and the *core curriculum*.

In a *correlated curriculum*, subjects remain separate from one another, but curricula and instruction are organized to help students explore explicit connections between and among the separate

courses they take. For example, curriculum and instruction can be organized purposefully so students see the relationship between their material in a U.S. history course and in an American literature course.

That kind of correlation can not only provide students with complementary experiences but also utilize limited instructional time economically. If a history unit on the nineteenth century provides background for romantic literature's response to industrialization, more time will be available for additional language arts activities in English class, and the history class can devote less time to literary responses to industrialization and more to other topics. Similarly, effective correlation of curriculum and instruction between math and science courses can reduce the time spent reviewing math concepts in science.

A *fused curriculum* combines, or fuses, two otherwise-separate subjects into a new course. Following from the first example above, separate courses in U.S. history and American literature can be fused into a course called American Studies, which can be team-taught in a two-period block-time arrangement. Fused curricula could also take the form of a course in Humanities or a course in Science-Technology-Society.

Correlated and fused curricula have the logistical advantage of retaining subject matter identities, thus making it easier to work with either format in the ubiquitous subject-centered high school curriculum. A class of two fused subjects, of course, would represent a greater departure from the conventional subject curriculum than would correlation of separate subjects.

An *integrative core curriculum* organizes educational experiences around common personal and social problems, with subject matter introduced only as it bears on a particular problem under study. This is a different usage of the term "core curriculum" than its typical reference to commonly required courses. Beginning in the 1930s, "core curriculum" assumed a special definition that referred not to commonly required separate subjects but instead to a problem-focused, block-time, interdisciplinary course.

This integrative conception of the core curriculum aimed at providing students opportunities to collaborate with their peers and teachers, with whom they could apply and integrate subject knowledge to analyze common personal or social problems. Representing the greatest departure from the conventional academic program, the core curriculum is the most challenging interdisciplinary curriculum to implement in high school. This conception, largely forgotten among secondary educators, has been eclipsed by the relentless expansion of academic requirements.

Food for thought and action

Regardless of the approach or approaches to interdisciplinarity a school takes, subject matter must be treated not as an end in itself, as inert knowledge students are expected to regurgitate on a test; rather, it must be food for thought, connected to students' experiences beyond school. Students tend to learn better when they perceive a connection between their concerns and what they are asked to learn (Hoy and Hoy 2006, 150). Making curriculum more narrowly academic can easily undermine academic achievement.

Because the traditional academic subjects were designed to discover knowledge about the natural world and human experience, opportunities to apply subject matter to life beyond school should be self-evident, if often overlooked in deference to "coverage" and test preparation. A useful resource for applying and integrating subject matter to examine and act upon social issues is Evans and Saxe's (1996) *Handbook on Teaching Social Issues.* Encouraging students to make connections between subjects and between subject matter and life beyond school can make subject matter more meaningful and increase student learning.

Resources for a connected core

The subject-centered curriculum presents both obstacles and opportunities for students to connect their experiences in separate subjects and to connect their academic experiences to life beyond school. Fortunately, numerous practical resources for establishing interdisciplinary connections are available. Classic guides to developing interdisciplinary and problem-focused integrative core programs include Faunce and Bossings's (1951) *Developing the Core Curriculum;* Lurry and Alberty's (1957) *Developing a High School Core Program;* Zapf's (1959) *Democratic Processes in the Secondary Classroom;* and Vars's (1969) *Common Learnings: Core and Interdisciplinary Team Approaches.* Though dated in obvious ways, these guides present basic principles that still hold.

Wraga (1997) presents a historical overview of interdisciplinary curriculum in K–12 education in the United States. The best summaries of research on interdisciplinary curriculum and instruction are Vars (1996) and Caskey (2006). Among other things, research has found that students in interdisciplinary settings learn subject matter as well as or even better than do students in subject-centered settings.

The best contemporary guides to establishing interdisciplinary connections are Vars's (1993) *Interdisciplinary Teaching: Why and How;* Beane's (1997) *Curriculum Integration;* and Klein's (2002) comprehensive *Interdisciplinary Education in K–12 and College.*

Underscoring the importance of complementing the academic curriculum with interdisciplinary connections, the College Entrance Examination Board, a long-time advocate of subject-centered curriculum, published Klein's invaluable volume.

Conclusion

Some high school educators may recall that during the late 1980s and the 1990s interdisciplinary education was something of a fad in school reform. It is important to recognize, however, that decades earlier establishing interdisciplinary connections, as well as connections between the curriculum and life beyond school, had already been prescribed as a basic principle of curriculum and instruction (e.g., Tyler 1949). If developing such connections were ongoing, students might better learn subject matter, find their academic experiences more meaningful and useful—and less often use fragmented high school curricula as an excuse for shirking academic work.

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William G. Wraga is a professor in the Department of Lifelong Education, Administration, and Policy, College of Education, University of Georgia.