

Beyond Interdisciplinary: Preparing Teachers for A New Curriculum

By Marion Brady

Winning wars. That's what the curriculum at the army's West Point Academy is all about. To that end, during the first years of the 20th century, cadets were taught that victory on the field began with an artillery barrage, continued with an infantry bayonet assault, and ended with the cavalry mopping up the stragglers with sabers.

While cadets were studying these maneuvers perfected by Napoleon, German industries were cranking out machine guns, poison gas, long range artillery, tanks, aircraft, and submarines.

In a single year of World War I, 1916, there were approximately 2,000,000 battle casualties. Most were infantry. Advancing with bayonets at the ready, they were leveled by machine gun fire. A smaller number were seamen who lost their lives to German submarines as they manned ships loaded with the vast amounts of hay necessary to feed thousands of unused cavalry horses.

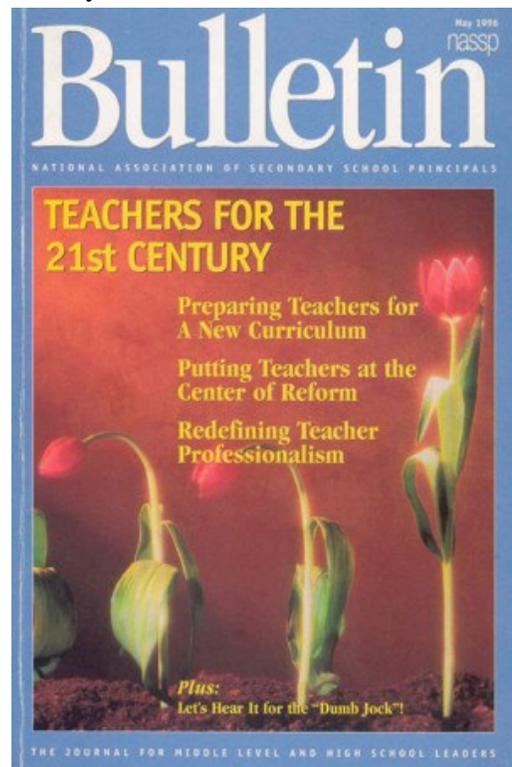
A poor curriculum is a dangerous thing. And teacher education shaped by preparation for such a curriculum makes an alternative ever more difficult to imagine.

The Traditional Curriculum

A poor curriculum is a dangerous thing. And the traditional secondary level curriculum is a poor curriculum. Its inadequacies may or may not translate into wartime casualties, but at the very least it is wasting human potential, and making it far more difficult to solve our individual and collective problems.

The present curriculum is based on the academic disciplines, and from that fact many serious problems stem:

- Like the turn-of-the-century West Point curriculum, today's general education curriculum has no built-in mechanisms that adapt it to change.
- Beyond and between the disciplines lie vast and extremely important areas of knowledge, knowledge presently being ignored.



- Individually and collectively, the disciplines are far too complex to serve as a curricular framework. Every adolescent ought to be able to understand the organization of the curriculum and explain its rationale. That is not now possible.
- Certain random disciplinary intersections notwithstanding, the disciplines cannot be integrated in any functional way. They cannot, therefore, either display to students the holistic, systemic nature of human experience, or provide a coherent conceptual structure for organizing and relating information.
- No philosophical propositions drive the selection of content. We teach, with minor variations, what we think is important. But we think it is important primarily because it is what we were taught.
- The disciplines segment reality in artificial, awkward, arbitrary ways. We simply do not look at human experiences—marital relationships, ecological disasters, management effectiveness, ethnic conflict, resource depletion, or any other complex human problem or condition—by bringing the disciplines, one-by-one, to bear on them.
- The disciplines compete for time and place in the curriculum, a competition the outcome of which is ordinarily settled not by logic, but by tradition or political maneuvering. No authority mediates competing claims, no agreed-upon instructional priorities guide decision making, no one requires that the disciplines demonstrate that they contribute in meaningful ways to overarching instructional goals.
- Even if the current patchwork curriculum gave students a comprehensive, integrated conception of reality, it is extremely inefficient and wasteful of time. A single, coherent general education instructional program could do a much superior job in far fewer hours, thereby opening up myriad educational options not presently available.
- The disciplines have become institutionalized. Means have become ends. Many teachers are more interested in their disciplines and the supporting textbooks than with those aspects of the real world the disciplines and textbooks purport to explain.
- Around disciplinary conceptual structures, bodies of factual information of ever-increasing size accumulate. Instilling this information often becomes the purpose of instruction, obscuring both the concepts which put the information in context and the processes which generated it. A premium is put on the single mental process of recall, to the neglect of all other cognitive processes.
- Ultimately, education is not primarily about accumulating knowledge, but about identifying and exploring relationships between various aspects of reality. Because, collectively, the disciplines neglect so much of importance, and because they cannot be satisfactorily integrated, students are deprived of the tools they need to create new knowledge. Of all the problems with the traditional curriculum, this is almost certainly the most serious.

As long as the academic disciplines hold the curricular center stage, these and other problems will persist. Mixing or matching disciplines in novel ways, bringing them to bear on random themes or concepts, using them as tools for the study of student needs or social problems, putting them in the service of multiculturalism or making them sources of “cultural knowledge”—such efforts may sparkle for a time from the Hawthorne Effect, but they provide no comprehensive solution to present problems.

Indeed, given the present encouragement of discipline-centered projects by efforts such as Goals 2000, the situation is likely to get worse. Freshly reinforced with scholarly but

narrow input, the disciplines will attract the kind of attention that will make an alternative, holistic curricular base even less likely to get serious consideration.

The Objective

Much of the traditional curriculum's incoherence can be attributed to the lack of an understandable, practical, primary purpose. Pressed for a statement of what education is ultimately all about, the educational establishment is of several minds.

"Students are being prepared for democratic citizenship," says one faction.

"They're being prepared to engage in useful, satisfying work," says another.

"Enabled to lead self-fulfilling lives," is the view of yet another group.

It is probably fair to say that statements such as these serve no useful purpose. Terms are rarely defined, the benefits lie somewhere in a vague future, and teachers feel no obligation to provide hard evidence that what they are doing leads with certainty to the ends they profess to seek.

Here is a different statement of purpose: The primary goal of instruction is to help students understand present experience. Understanding and accepting this perhaps rather innocuous-sounding declaration would shake the educational establishment to its foundations.

The Course of Study

Translated directly into traditional-style classroom instruction, the phrase "understanding present experience" has the teacher facing the class and asking, "What's going on—right here in this room, right at this moment?"

From this simple beginning, all else stems. In the days, weeks, months, and years that follow, as the students' horizons expand, the task is to decide which aspects of experience are significant, what sort of conceptual framework organizes these aspects most usefully, which aspects are related, in what ways, and why. The role of the curriculum is to help with this process as needed.

It may appear that the statement of purpose excludes just about everything presently being taught. In fact, it excludes nothing, merely demands that whatever is presented be anchored in meaningful experience, and related systemically to all other knowledge.

Not long into a thoughtful study of the here and now, it becomes apparent that, useful as they are in the description and analysis of certain kinds of highly circumscribed phenomena, the traditional disciplines are not the basic tools we use to organize our thoughts about reality.

They fit into certain niches in our total conceptual framework, but they are not that framework's primary organizers, and they do not mesh with each other sufficiently to reflect the integrated nature of perception. Analyzing and describing experience, we seek five kinds of information. We locate an experience in time, place it in a physical milieu, identify participants or participant objects, describe action, and attribute cause. That changing any one of the five significantly alters the experience assures us of their centrality and interrelatedness.

When these five familiar dimensions of experience—time, place, actors, action, and motive, and their respective elaborating conceptual structures—replace the disciplines as the basic organizers of the curriculum, a far simpler and much superior framework for general education emerges, a framework with none of the problems noted earlier. It is the key to a curriculum capable of lifting students to levels of performance not now possible.

Instructional Materials

Teachers accustomed to leaning heavily on textbooks and other professionally-created materials may be dismayed at the openness and apparent unpredictability of a course of study that begins with the study of the familiar and the mundane. Undeniably, it takes considerable self confidence to close the textbooks with their memorizable, two-dimensional descriptions of reality and turn directly to reality itself.

Obviously, however, to the basic curricular question, “What’s going on here?” those present are in the best possible position to answer. And, if participants come to understand that the process in which they are engaged is at least as important as are its products, they may discover that learning can be intrinsically rewarding.

For those who undertake the exploration of immediate experience, discomfort will in most instances be short-lived. What is being attempted, after all, is not the teaching of another discipline with a specialized jargon and an unfamiliar conceptual structure, but a rethinking of the utterly familiar as it presents itself at the moment.

As the old saying, “A fish would be the last to discover water,” suggests, exploring the familiar is not without its challenges. However, since all the tools for the task—the vocabulary, the conceptual structure, the rationale—are already deeply imbedded in the assumptions of all participants, instruction is a matter merely of bringing what is already known into consciousness and organizing it formally.

Soon, familiar territories will be sighted. For example, students who, looking around at their classroom, begin to raise questions about its origin, size, shape, location, design, construction, heating, cooling, orientation, and arrangement, and its population with their attendant states of mind and patterns of action, will find themselves moving, at the very least, into mathematics, art, architecture, geography, physics, sociology, psychology, economics, and history. Whenever appropriate, these disciplinary conceptual substructures of our cultural supradiscipline can be called into play.

This is not to say that inquiry never moves beyond the bounds of the classroom, but that, when it does, it is anchored in ideas which were first shaped in a context that was immediate, powerful, and important.

Evaluation

When change is proposed, one of the many reasons for its rejection is that students will not be prepared for one or another examination lying somewhere in the future. Admittedly, the test-makers are sometimes the tails that wag the dogs, but to cite them as a reason for teaching less well than one knows how is surely indefensible.

And in this case, unnecessary. The curriculum being proposed does not replace the disciplines. At the very least, it anchors them in reality, and ties them together into a mutually reinforcing whole. As common sense suggests and myriad research confirms, the hardest material to grasp and remember is that which is not related in some meaningful way to experience. Integrating knowledge inevitably enhances test-taking performance.

Teacher Education

Conventional wisdom has it that the mainstay of teacher preparation should be a thorough grounding in one of the traditional disciplines. For general education, such training is almost certainly counterproductive.

Two sorts of teachers can handle curricula which move on a broad front to explore human experience. The first sort know much about many different things. The second sort do not, are comfortable admitting that they do not, and accept the role of “lead student” in a cooperative search for understanding. Of the two, the second is probably preferable, for it makes of the teacher an appropriate role model.

Since much of what students will need to know in the course of living out their lives no one yet knows, learning to look for answers makes more long term sense than finding a few of immediate utility. Teachers who know (or pretend to know) all the answers give students a shallow view of the nature of learning, the dimensions of knowledge, and the challenge of the future.

Unfortunately, given the fragmented traditional curriculum, many teachers will resist undertaking instruction that deals with reality holistically. State mandates, college entrance requirements, and other bureaucratic demands create additional difficulties or perceptions of difficulty to overcome. The simplest solution therefore is probably to team teachers with a range of skills and abilities, assign them a large group of students, give the students credit and grades for “component” courses with familiar course titles, and proceed in whatever way the rules, regulations, and teacher predispositions permit. Given the current level of public suspicion and paranoia in many parts of the nation, the less apparent change in the curriculum, the better.

What Now?

The traditional academic disciplines are the organizers of the curriculum of nearly every secondary school, college and university in the nation. Departmental lines within institutions are drawn by them. Budgets observe their boundaries. Administrative structures reinforce them. Professional organizations guard their interests. Lives of service are devoted to them. Alternatives to them are almost literally unthinkable. They are not going to go away. Nor should they.

That the disciplines are a highly productive way to segment reality for the purpose of specialized study is undeniable. But they are inappropriate organizers of the general education curriculum. We have had more than a century to experiment and have not found in them answers to the most elementary questions about the curriculum.

- Which disciplines and which aspects of those disciplines--are of greatest value in the struggle for survival?

- How should knowledge be organized? Integrated?
- How can neglected areas of knowledge be identified?
- What can be done to make the curriculum self-renewing?
- How can students be taught to generate new knowledge rather than merely absorb or reorganize existing knowledge?
- What can be done to make the content of the curriculum so immediately useful, so powerful, so central to the successful living of daily life, that grades, disciplinary measures, mandatory attendance laws, and other evidences of failure become relics of the past?

A decade of particularly intense curriculum scrutiny lies behind us, and the disciplinarians and interdisciplinarians have not discovered a satisfactory answer to a single one of these questions, have instead sought answers to education's problems in new facilities, novel schedules, longer school days, statistical sleights-of-hand, alternative staffing, more stringent teacher training, and other strategies.

Nothing much has changed, nor will it until what is taught is determined by reason rather than a commitment to ritual. To continue down the curricular road we are on does an enormous disservice to students, the educational establishment, and the larger society.

The traditional disciplines need to remain healthy, and the new ones constantly emerging need to be encouraged. The complexity of modern society requires the specialized skills they create and the insights they provide, and students need an opportunity to pursue those for which they have an aptitude. But students also need—we all need—the means for grasping the totality of experience.

Imbedded far more deeply in our thinking than the disciplines—so deeply we have not recognized it—is the optimum organizer of the general curriculum. Its major components are time, place, participants, action, and cause. These, and the relationships between them, are the mainstays of the conceptual framework that structures our language, organizes our thought, directs our action, shapes our creations, allows us to dream. Upon this foundation can be built a vastly superior general education curriculum, and a program for preparing teachers to teach that curriculum.

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