Designing High Schools for the Future

Out of ASCD's High School Futures Planning Consortium have evolved experience-based principles other school leaders can adapt for improving their own schools' organization, curriculum, staff development, and use of technology.

American high schools remain under scrutiny after a decade of attempts to improve them by leaders in government, business, and education. For many high schools, the mandated reforms are unlikely to have significant impact because they seek to solve a variety of problems for which each solution is complex and time-consuming. Further, most of the mandates fail to recognize that school faculties are at different stages of self-improvement, as they evolve from schools appropriate to an industrial age, through a restructuring stage, and on to where they have become real learning communities reflecting society much more broadly (McCune 1986).

Efforts to improve the high school must center on the most fundamental flaws upon which its leaders and patrons can agree. For example, the following statements, documented by numerous studies and reports, describe problems that most of us will agree need to be addressed.

- High schools are characterized by the frequent changing of classes, where large amounts of data are presented to students who rarely use the information because they fail to make the connection between school success and achievement in the work world.

- By national assessments and international comparisons, many American students are unable to comprehend, apply, or think critically about science, history, geography, mathematics, or literature. As knowledge in these disciplines has expanded, curriculums, in their attempts to "cover" everything, have failed to address most topics in sufficient depth.

- Large numbers of youth are graduating without the proficiencies needed to enter college or to become productive employees. The corporate world, increasingly aware of the link between the quality of its work force and industry's competitiveness in the international marketplace, has articulated a new set of skills needed by high school graduates (Carnevale et al. 1988).

- To be successful socially and professionally, people need to complement their cognitive knowledge with good interpersonal skills, a strong value base (character), and a positive but accurate view of self. While
schools usually subscribe to these characteristics in their goals and statements of philosophy, few address them directly or substantially in the learning experiences they offer youth.

How can the faculty and the patrons of a high school respond to these widespread deficiencies and varied expectations while planning a program representing their judgment of what will best equip students for the future? What are the intellectual and social skills tomorrow's adults will need to lead happy and productive lives?

ASCD's High School Futures Planning Consortiums

These are the pressing questions and issues that in 1981 compelled ASCD to begin working toward solutions with a consortium of high schools.

From 1981 to 1983, the first consortium of 15 high schools examined the issue of the core curriculum (Roberts and Cawelti 1984). From 1984 to 1986, the second group of 25 high schools generated more comprehensive plans in school organization, curriculum, staff development, and technology in the consortium schools. The most important outcome has been the evolution of a set of central ideas or principles that has driven the emerging changes in the schools (see "Principles" on pp. 32–35). These principles, we hope, can be applied in similar efforts by other schools.

Consortium members believe that a given program or innovation can rarely be simply exported from one school to another but that other high school leaders may be better able to develop their own solutions by examining these experience-based principles. The principles themselves can be debated, with additions or deletions made depending on local priorities; but we believe they will help leaders come to a better understanding of the kind of high schools toward which they ought to be working now.

School Organization

High schools in the consortium have applied the principles of school organization in several ways. For example, they have employed a variety of methods to afford school teams time to analyze the changes needed. Some schools generously provide substitutes to free teachers from routine demands, while others have scheduled the same planning period for teachers within a department. Compensation for work during the summer has often been necessary, but the provision of regular time throughout the year for teams to continue their strategic planning has been even more productive.

The outcomes of these planning efforts are varied. In Bedford, New York, for example, faculty members of Fox Lane High School are examining the school's basic organizational patterns in an attempt to develop a school within-a-school for 9th graders. The new organization will feature smaller classes, interdisciplinary teaming, and community service to assure a smoother transition for students at...
School Organization Principles

1. A faculty expected to make a significant contribution to school improvement must have strong administrative support, access to information, and ample time.

2. Maximum authority and responsibility for teaching and learning are placed at the school site for authentic accountability.

3. New roles are created, and others redefined, to respond to leadership needs in both teaching and administration.

4. Working together in teams facilitates interdisciplinary communication, delivery of instruction, and better decisions about planning for school improvement.

5. Incentives, recognition, and rewards convey to faculty members that their extra efforts on behalf of total school improvement are important and are valued.

6. Larger high schools assure that each student has a "home-base," where teacher-advisers cultivate a sense of social affiliation with the school and provide counseling on social, academic, and vocational matters.

7. Each high school has discretionary financial resources for responding to staff development or student needs on a month-to-month basis.

8. The school is a learning center for the larger community, where a variety of student and adult learning options are provided.

This level. A similar plan for 9th graders is underway at Schenley High School Teacher Center in Pittsburgh, Pennsylvania.

Florin High School, in Elk Grove, California, spent the two consortium years planning to open its doors this fall with a new six-division structure, replacing the more traditional pattern of a dozen or more departments. Within these divisions are faculty teams that will determine how students will be grouped, what materials will be used, and how to make interdisciplinary connections for students. Penn High School in Mishawaka, Indiana, also begins the school year with this fundamental organizational change.

At Catalina High School in Tucson, Arizona, the number of department chair positions has been cut in half in order to facilitate interdisciplinary teaching. And in Bellingham, Washington, Sehome High School creates a home base or small learning community through its "Mariner Seminars" program. Students from Travelers Rest High School in South Carolina now have access to a variety of community resources, such as the Roper Mountain Science Center, the county's Fine Arts Center, and the Governor's School for the Arts.

Highland Park High School in Illinois and Bexley High School in Ohio are creating new roles for teachers by encouraging them to present creative options for using their time in efforts other than teaching. Their proposals are reviewed for approval by committees of teachers with the principals. Tenured teachers at Highland Park are also provided options in selecting the method of supervision they prefer. Similarly, at Bexley High School the Differentiated Staffing Commit- ment (DISC) program frees teachers for extra periods to pursue work on topics they have proposed such as tutoring, peer coaching, and student counseling.

The Shared Governance Committee of the Alternative Secondary School in Jackson, Mississippi, is responsible for selecting staff and making curriculum policy decisions under the school's site-based management plan. Training in shared decision making is helping Edina High School in Minnesota to move in the same direction. One of the most comprehensive analyses was accomplished by the faculty of Joel Barlow High School in West Redding, Connecticut. Their environmental and internal scanning revealed considerable data about their current and probable future status. When the need for change becomes apparent, school leaders find scanning an essential part of planning for the future.

Curriculum

Consortium members were vitally concerned about issues of curriculum development and evaluation. They heard a presentation about outcome-based systems of organizing the curriculum, and they were especially interested in learning how to develop measures of student performance that are more meaningful than traditional standardized tests. Consequently, many high schools will be pioneering in the assessment of students' growth based on their overall performance on long-term projects, for example, a science experiment, a painting, a composition, or a group problem. The members also recognized it will be necessary to enter the political arena if schools are to break away from the preoccupation of the public and press with "wall charts" and standardized test results comparisons.

Perhaps the strongest impact of these discussions in the curriculum area was the development of interdisciplinary courses. All participants agreed that schools have far too much information to teach and that they must establish clearer connections among the bodies of knowledge in
various fields. At Victor J. Andrew High School in Tinley Park, Illinois, for example, all 9th graders take a humanities course that addresses the role of human beings in contemporary society through art, music, history, and literature. At Florin High School, a curriculum in world cultures and literature will be taught in a two-period block for 9th and 10th graders, with a parallel program in American cultures and literature for 11th and 12th graders. Scottsdale-Arcadia High offers an interdisciplinary course in mathematics and applied technology. And for one special day at Fox Lane High School, students chose 38 interdisciplinary topics ranging from opera and bioethics to Moslem and jazz improvisation.

Consortium participants devoted much attention to the docile nature of today's students, who are deluged with information yet seldom use much of it. Perhaps the most feasible innovation suggested was to restructure the senior year to become a time when students would be called on to demonstrate their knowledge by completing a variety of projects or community service activities.

Participants also analyzed Curriculum and Evaluation Standards for School Mathematics (NCTM 1989) and discussed the report of the Bradley Commission on History in Schools (1988). As part of their five-year plans, several schools will conduct systematic reviews of the major subject fields.

Staff Development

The consortium schools reported much progress in responding to the principles underlying good practice in staff development. A common theme was emphasis on the development of thinking skills. For example, at Joel Barlow High School, thinking skills are being integrated into various subjects, and a new course on thinking is being taught. The most ambitious staff development work is under way at Schenley High School, which serves as a center for training all secondary teachers in the system.

Victor J. Andrew High School, which has a long-term commitment to peer coaching, provides follow-up help to teachers who have received training in the 4MAT system of teaching/learning styles, in the Hunter decision-making model, and in student motivation. The school's second five-year plan calls for the addition of modules on cooperative learning and reading/writing across the curriculum.

The principles of multiple options for teachers and incentives as important ingredients for staff development have been developed in an imaginative way at Penn High School. Their Career Development Options Plan includes Thinking Skills I and II, Teacher Expectations and Student Achievement, Mastery Learning, and Peer Coaching. Participants progress through different levels of mastery and are then rewarded with additional classroom materials or equipment, attendance at national conferences, or other incentives.

The most responsive high schools of the future will devote considerable time and effort to ongoing staff development, affording teachers a variety of alternatives from which they can choose as they pursue their own professional growth needs.

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Curriculum Principles

1. Designing a core of common learning helps ensure that all students are provided the curriculum content and learning experiences most appropriate to their future lives.

2. Key organizing elements for the core curriculum center around fundamental societal concerns such as global interdependence, civic responsibility, ecology, economic productivity, and world peace.

3. In addition to attaining competence in the basic skills, students are required to demonstrate the ability to apply, essential learning-thinking-communicating skills needed in the future.

4. Schools should avoid student tracking plans that deny any students access to a fully balanced and substantive instructional program of general education or electives.

5. The curriculum is designed to assure that students demonstrate application of previously acquired knowledge, that students are actively involved in the learning process, and that each year they assume more responsibility for their own learning.
Members of ASCD’s High School Futures Planning Consortium

Alternative Secondary School
Jackson, Mississippi
Arkansas Senior High School
Texarkana, Arkansas
Beaverton High School
Beaverton, Oregon
Bexley High School
Bexley, Ohio
Catalina High School
Tucson, Arizona
Centennial High School
Champaign, Illinois
Edina High School
Edina, Minnesota
Florin High School
Elk Grove, California
Forest Hills Central High School
Grand Rapids, Michigan
Fox Lane High School
Bedford, New York
Highland Park High School
Highland Park, Illinois
Joel Barlow High School
Easton-Redding, Connecticut
Johnson High School
St. Paul, Minnesota
Northeast High School
Oklahoma City, Oklahoma
Penn High School
Mishawaka, Indiana
Red Mountain High School
Mesa, Arizona
St. Martin’s High School
Mississauga, Ontario
Schenley High School Teacher Center
Pittsburgh, Pennsylvania
Scottsdale-Arcadia High School
Phoenix, Arizona
Sehome High School
Bellingham, Washington
Thomas B. Doherty High School
Colorado Springs, Colorado
Thornton Academy
Saco, Maine
Travelers Rest High School
Travelers Rest, South Carolina
Victor J. Andrew High School
Tinley Park, Illinois
W. T. Sampson High School
Guantanamo Bay, Cuba

Preparing students for a world in which technology plays an increasingly important role is a priority of Forest Hills Central High School in Grand Rapids, Michigan. Here a student edits a video presentation.

Technology
As soon as they begin to grapple with planning for the future, schools encounter questions about the best uses of technology. One of the leading high schools in the country in technology is Forest Hills Central High School in Grand Rapids, Michigan. Their telecommunications system, Practek, brings studio presentations into the classrooms when needed. The system also picks up foreign language newscasts by satellite receiver, as well as CNN’s “Week in Review” and “World News in Review.” Teachers and students are using computer graphics, desktop publishing, and video presentations to synthesize and present new knowledge. At a meeting of the consortium last year, one of Central’s

Staff Development Principles

1. Because teachers vary substantially in training and experience, staff development is planned by the staff members themselves to provide a variety of options for continuous professional growth.

2. Effective staff development, which should be carried out in a sustained fashion over time, includes such elements as an adequate theory base, modeling and demonstration, and opportunity for practice, followed by a system for providing feedback and coaching.

3. Long-term plans for staff development include an appropriate balance between training in teaching strategies appropriate to specific fields and opportunities for further study in the field itself.

4. Staff development plans include programs for helping students acquire proficiency in such skills as problem solving, critical thinking, reasoning, comprehension, and creativity, as well as training for teachers in how to assess students’ proficiencies in these areas.

5. Incentives are provided for teachers to develop new and specialized skills in such areas as diagnosing student learning needs, helping others improve their teaching, using technology, and evaluating student learning. These teachers are afforded opportunities for helping their colleagues on a clinical basis at the school site.
teachers demonstrated a hypercard presentation on deforestation that she and a student had prepared.

The 680 students at Joel Barlow High School have access to 112 Macintosh computers, which they use extensively to improve their composition skills. Faculty at Penn High School are developing a comprehensive Management Information System both for storing routine data and for monitoring student performance on a mastery-based curriculum. Similar applications are also being perfected at Edina High School.

Continuing a Tradition

Participation in the consortium has assisted the high schools both in sharpening the issues they need to address and in identifying potential solutions. The principles outlined here suggest a point of departure for designing schools that will be more responsive to a world of continuing change and to the diversified, if not conflicting, expectations the public holds for its schools.

Underlying these categorical principles are even more basic propositions that have influenced the teachers, principals, and parents who engaged in strategic planning as a means of restructuring high schools to better serve their youth for the future. Everyone seemed determined to assure that all students succeed at significant learning tasks and to develop more of a "results" orientation. Much attention was given to the idea of professionalizing teaching. These basic propositions are now "givens" in these schools, and the results are beginning to show as ideas flourish among previously untapped resources and the attendant increase in accountability develops. The schools are no longer operating in isolation as they undertake complex improvements, but rather the leaders are collaborating with other groups and agencies for support.

Members of the consortium are really just now beginning the challenging task of implementing their five-year plans. Some will do better than others, but the time spent over the past two years will have been well spent if the basic flaws characterizing their high schools are seriously addressed. With everyone in the community feeling a sense of responsibility for excellence, the results are certain to be of great value in producing thinking, compassionate, and informed citizens dedicated to service.

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Technology Principles

1. To select appropriate hardware and software, schools must decide on the desired uses and purposes of technology. Effective software can help retrieve and sort information, solve problems, dramatize events or issues, or assure mastery of skills. The first step is to establish where technology can accomplish tasks more efficiently or effectively than humans.

2. In planning for broader implementation of technology, careful provision must be made for the time and expense involved in training personnel in its use.

3. In the computer field, early attention is given in selecting programs to assure balance between instructional applications that provide "drill and practice" and those that make more open-ended, creative uses of the technology.

4. Care is taken to provide equity in access to technology as a learning tool in order to assure that neither teachers nor students are denied the opportunity to learn in this manner.

5. Students receive training in how to access, synthesize, and present information, and they participate regularly in assisting teachers in the presentation of such information to other students.

References


Gordon Cawelti is ASCD's Executive Director.