

CIMS— The Curriculum Drives the Program

Guided by the State Education Department, regional teams in New York integrate curriculum, assessment, instructional support, and staff development by focusing on learner outcomes.



Photograph by Elzer Russo

CIMS—Comprehensive Instructional Management System—is a partnership between the State of New York and local school districts designed to develop and improve local instructional programs. Beginning with a local project in New York City in 1973 and followed by another in an upstate Board of Cooperative Educational Services (BOCES) in 1978, CIMS became, in 1982, a statewide effort that now involves 876 schools (mostly elementary) and 294,600 students.

CIMS makes curriculum the key to a successful instructional program by defining curriculum as "an ordered set of intended learning outcomes" in which teachers and administrators keep track of how effectively these outcomes are met. CIMS has four components: curriculum, assessment, instructional support, and staff development. The curriculum drives the other components.

The CIMS approach to curriculum development and monitoring was developed in response to certain problems that educators throughout the state were experiencing. Consider the following illustrations.

- When a veteran English teacher retired suddenly in midyear for health reasons, his replacement tried to determine where to pick up in the curriculum. The students said they had been reading *Julius Caesar*. This surprised the replacement, because according to the curriculum the students should have been reading American literature!



Teachers from several school districts, typically representing 20 buildings, pool their resources and experience to develop curriculum together. Here, CIMS teachers pool ideas on motivating students to do individual reading.

● A grade-school teacher said she began each year's arithmetic lessons with a review of all that had been covered in previous years. A typical result of this all-too-common practice is that students get less and less of what is supposed to be introduced each year.

CIMS attempts to change the kinds of situations represented in both these examples by making curriculum primary. The first example—Shakespeare in an American literature course—suggests the absence of both a curriculum and an instructional program. Only the replacement teacher noticed the discrepancy between the written curriculum and what her predecessor had been teaching. No administrator—principal, assistant principal, curriculum director, language arts coordinator, or department chair—had monitored the curriculum. Furthermore, none of the teacher's colleagues had raised the issue, either informally or in department meetings. The curriculum was not being followed, and the instruction was not being monitored.

From the CIMS perspective, a curriculum offers teachers a common ground from which to talk with one another about teaching. But if no one in the school keeps track of whether or how well the written curriculum is implemented, its value is compromised and no instructional program exists. CIMS participants realize that

when the principal and teachers agree on the curriculum and on what should be covered during the year, they focus instructional time more purposefully.

The second example illustrates the frequent practice of beginning on page one of the textbook and proceeding to the end of the school year (though seldom to the end of the textbook) without considering students' present achievement levels. This practice risks spending time on skills students already have acquired at the expense of teaching new skills. Most CIMS content areas provide survey tests¹ that teachers administer at the beginning of the year. With these tests teachers can place students in the curriculum, determine their instructional needs, and avoid superfluous review. If students understand certain portions of the curriculum, CIMS teachers modify their instruction accordingly.

These two examples indicate the CIMS concern with curriculum, with the use of assessment to place students in it, and with the management of



Based on the advice of teachers, the CIMS reading curriculum includes the recommendation that students set aside time each day for sustained, silent reading.

instructional programs. Few educators would quarrel with these concerns; many school administrators, however, would point out that there is insufficient time to involve teachers in curriculum development. CIMS administrators help resolve this problem by bringing together teachers from schools within a region.² Teachers from several school districts, typically representing 20 buildings, pool their resources and experience to develop curriculum together.

Not everyone is pleased at the prospect of a local district's losing control over curriculum selection (even though this is exactly what happens when the textbook or basal series becomes the curriculum). CIMS educators offer a solution. Staff development for principals and teachers, which is part of the CIMS process, enables each local school to determine the emphasis it will place on each intended learning outcome. (Participating schools make a commitment to use the entire CIMS curriculum, with the understanding that it can be revised only by a statewide committee of teachers. This year a curriculum revision group introduced a K-6 math curriculum that is significantly different from the original 1978 BOCES version.)

Explicit Curriculum and Intended Learning Outcomes

For CIMS, curriculum means intended learning outcomes. Why insist on this concept? If teachers are not informed of the outcomes they are supposed to help students attain, the principal has no basis for determining the instructional program's success. If teachers within and across grade levels do not share a knowledge of learning outcomes, their capacity to communicate and cooperate among themselves is limited. Finally, if the curriculum is not specified, teachers' informal versions of the curriculum may vary widely.

The result is random teacher behavior. It is inadequate just to have the principal, or even the principal and the teachers, discuss what the curriculum is. They must commit to an explicit curriculum; when expectations for a curriculum are jointly arrived at, all parties understand its purposes and can assess its effect.



In CIMS science, the development of process skills implicit in the scientific method was judged to be as important as the acquisition of scientific information. Thus, children often collaborate on experiments.

Assessment that Matches Real Curriculums

When learning outcomes are explicitly defined, it is possible to assess whether they have been attained. The CIMS approach of matching assessment to the intended outcomes that, in turn, define curriculum enables teachers to make informed instructional decisions. Learning outcomes focus both teaching and assessment. Rather than comparing students with their classmates on a norm-referenced basis, teachers can assess each student's progress according to an established standard. When the criterion-referenced assessment indicates that a student is not reaching the standard, teachers adjust that student's instruction accordingly.

Curriculum and Instructional Support

CIMS projects include instructional support materials such as manipulatives, kits, and microcomputer software, as well as paper-and-pencil activities students can use to practice their newly acquired skills. The connection between curriculums and these support materials is quite clear: the materials match the outcomes. (CIMS coordinators are concerned with the

match, not with the actual instructional practices; instruction remains a matter of local discretion, unlike the requirement to commit totally to the CIMS curriculum and its assessment process, which does not.)

The integration of curriculum, assessment, and instructional support is managed through a reporting system. At the classroom level, teachers collect and report information on which they base instructional decisions. At the building level, principals use data on pupil achievement to determine whether the program is successful.

The CIMS Curriculum Development Process

The development process for curriculums in mathematics, reading, communication arts, science, and social studies has been similar. In each case, developers began by defining curriculum as intended learning outcomes. In addition, most developers used the existing state education department syllabus as a starting point.

Not all CIMS curriculums are parallel to the state syllabuses, however. For instance, the state's syllabus for science contained objectives organized by grade spans (K-2, 3-4, 5-6) rather than by individual grade levels. The CIMS science curriculums, in contrast, are graded for each year, K-6. With mathematics, the case was somewhat different. The teachers who developed the CIMS mathematics curriculums did not agree with the rate of presentation of terminal objectives in the state syllabus. As a result, they revised the presentational order by strengthening some objectives early in the sequence and postponing others. By the end of sixth grade, however, both the CIMS curriculum and the state syllabus encompass the same terminal objectives or outcomes.³ Decisions to depart from the state syllabus were based on the experience of teachers as reflected in CIMS assessments of student achievement.

Yet another similarity among the different subject-area projects is the role played by research in curriculum development. In all content areas, a supplemental review of the literature helped teachers grasp the framework and content of the curriculum.

While the curriculum development processes were similar across content

areas, the products—the actual curriculums—differ in some respects. Curriculums in mathematics and social studies are characterized by both overarching themes and graded scope-and-sequence structures; the science curriculum focuses more on a developmental process. The reading curriculum has overriding dimensions or strands, but no graded scope and sequence. These differences were conscious and deliberate. Since research in reading and communication arts encouraged a conceptualization of reading as holistic, a discrete-skills approach was avoided. In science, the development of process skills implicit in the scientific method was judged to be as important as the acquisition of scientific information. One interesting result of this judgment is the introduction in CIMS science of standardized teacher observations of student performance to complement paper-and-pencil tests.

CIMS products and procedures are disseminated by original developers to replicator projects by a Transferring Success process. State funding supports the transfer of curriculum, assessment, and instructional support from the developers to the replicator through staff development. Replicating projects assume all costs at the end of a three-year funding period.

The list of districts waiting to participate in CIMS curriculums continues to grow. This success is due to the way CIMS focuses educators' attention on integrated curriculums in which learning outcomes drive assessment, instructional support, and staff development. □

1. CIMS math, social studies, reading, and communication arts projects have developed survey tests. CIMS science presently has not, focusing at this stage of development on module (unit) tests and process assessment.

2. The original regional base eventually takes on a statewide dimension.

3. In the case of CIMS math, involvement of numerous regional projects resulted in the statewide revision or redevelopment of math assessment.

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