Integrating Teaching and Testing with Program Management

A group of school districts in western Oregon have developed a goal-based improvement model that provides teachers and administrators with a common information base.

Testing appears to have little impact on what happens inside schools. Among the reasons for this are:

1. District-managed tests are typically not connected with the curriculum being taught.
2. Procedures for scoring tests and managing and reporting test results do not squarely address the information needs of teachers and administrators.
3. Schools invariably lack policies and procedures to guide inquiry and discussion about the implications of test information.

The Valley Education Consortium Model

School districts and education agencies in western Oregon have united as the Valley Education Consortium to overcome these conditions and make testing a vital part of instruction and the management of instructional programs.

Our model is often described as "goal-based" or "outcome-oriented." These labels convey the central role of learning goals (curriculum) and evidence of goal attainment (assessment). In the elementary and middle school grades, the model requires first that teachers designate for each subject the learning goals students are expected to accomplish by the end of each grade level. Before the Consortium accepts a curriculum, however, the proposed grade-level goals must be reviewed, refined, and formally field-tested by teachers in all Consortium districts interested in using the curriculum.

We ask teachers to establish learning goals that are attainable but which stretch students' abilities. We believe learning goals must reflect high expectations for learning if districts are to foster excellence through their schools. Once goals are established for a curriculum area, and "indicators of goal attainment" are agreed upon, teachers build test item pools and related assessment procedures (such as writing exercises) for evaluating student progress. Test item pools are assembled on a grade-by-grade basis and made available to all teachers. Instructions for using the pools are provided in Grade-Level Handbooks and by faculty members who have been trained as "lead teachers."

Perhaps the model's most distinctive feature is the agreement that all district-administered tests of goal attainment will use variations of test items and assessment procedures contained in the test item pools developed for teachers. This agreement ensures that (1) district-administered tests assess the same learning goals teachers have been teaching, and (2) test items and procedures are comparable to those that students have encountered during the school year. This agreement reduces surprise and ensures fairness to both students and teachers.

Using Test Results

Two major uses are made of district-administered tests of goal attainment: (1) to provide teachers, at either the beginning or middle of the school year, with information to use for planning instruction to accommodate each student's goal attainment; and (2) to provide building and district administrators with information to use in judging the effectiveness of the district's instructional programs.

Our districts also administer standardized tests of achievement to determine how students within a district compare with students elsewhere in the nation. It is important to recognize, however, that scores on a standardized test do not tell teachers or administrators how well students have learned the skills called for in a district's curriculum. As Figures 1 and 2 illustrate, students can do well on a standardized test but nonetheless perform below expectations on a test dealing with district-adopted learning goals.

An important goal of the Consortium is to get test information into a useful format and into the hands of teachers and administrators as quickly as possible. For teachers, this is accomplished through use of the test item pools (which currently are most fully developed in mathematics) and computer printouts of student performance with respect to goal attainment on the district-administered tests. Administrators receive the same computer printouts, as well as an aggregation of this information to the building and district levels, and an annual program evaluation report. This report presents a detailed analysis.
of both curriculum-aligned and standardized achievement information by grade level, as well as information on student attitudes toward a subject area and other factors relating to a program’s effectiveness.

One aspect of our model is especially pertinent to school managers: the development of a new approach to thinking about program evaluation. The program evaluation report is intended to help school administrators manage their instructional programs. It shows district and building administrators quickly and clearly an instructional program’s effectiveness in fostering expected learning outcomes and the extent of learning gains, thereby pinpointing areas needing improvement. Figure 3 outlines the information contained in the report, most of which is portrayed graphically. An actual page from the program evaluation report is shown in Figure 4 (on page 58).

While the evaluation report identifies a program’s strengths and weaknesses, at least in terms of student learning and attitudes, it does not identify the factors that cause them. A separate handbook is being prepared to provide guidelines for school administrators in troubleshooting for causes of ineffectiveness, a complex and sometimes frustrating task.

Distinctive Features

The Consortium’s model for linking teaching and testing with program management is distinctive in two respects. First, grade-level test item pools can be used for a variety of instructional purposes, such as monitoring students’ progress toward achieving a particular learning goal or pinpointing specific learning strengths and weaknesses. In addition, the criterion-referenced tests that districts administer in January, which are based on the grade-level item pools, are
Figure 3. Outline of Information Contained in the Consortium’s Program Evaluation Report

I. Executive summary
   A. Interpretive summary of good news
   B. Interpretive summary of bad news
   C. Oddities and observations

II. Data summary
   A. Overall indicators of program effectiveness
   B. Factors related to program effectiveness
   C. Synopsis of Consortium end-of-year test data
   D. Synopsis of California Achievement Test end-of-year test data
   E. Data points that warrant scrutiny

III. District analyses
   A. VEC end-of-year test data
      1. Percentage of items answered correctly
      2. Range in items answered correctly
      3. Standard deviation in items answered correctly
      4. Percentage of items answered correctly in 1982-83 vs. 1983-84
      5. Student mastery of learning goals by grade level
      6. Student mastery of learning goals within grade levels
      7. Student gain scores from January through May
   B. CAT end-of-year test data
      1. Average total scores by grade level
      2. Average computation scores by grade level
      3. Average concepts and applications scores by grade level
      4. Percentage of students in upper and lower quartiles by grade level
   C. Factors related to program effectiveness
      1. Student attitudes toward mathematics
      2. Teacher attitudes toward the mathematics program
      3. Level of program implementation

IV. Individual school analyses
   (District level analyses are repeated for each school.)

V. Extreme case student analyses
   A. Percentage of high- and low-scoring students, by grade level
   B. Percentage of items answered correctly by high- and low-scoring students, by grade level
   C. Average student gain scores from January through May, by grade level
   D. Attitudes of high- and low-scoring students toward mathematics, by grade level

“An important goal of the consortium is to get test information into a useful format and into the hands of teachers and administrators as quickly as possible.”
STUDENT MASTERY OF LEARNING GOALS ACROSS GRADE LEVELS

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The One Minute School Administrator

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References


Del Schalock is Assistant Dean, School of Education, Oregon State University-Western Oregon State College; Executive Director, Valley Education Consortium; and Research Professor, Teaching Research Division, Oregon State System of Higher Education, 345 North Monmouth Avenue, Monmouth, Oregon 97361. Glen Fielding is Program Coordinator, Valley Education Consortium; and Associate Research Professor, Teaching Research Division, Oregon State System of Higher Education, 345 North Monmouth Avenue, Monmouth, Oregon 97361. John Erickson is Superintendent, Stayton School District, Stayton, Oregon, and Lincoln County School District, Newport, Oregon 97365-0088. Michael Brott is Superintendent, Central School District, 1610 Monmouth Street, Independence, Oregon 97351-1096.