DOCUMENT RESUME

ED 361 368 TM 020 454

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TITLE Using New Forms of Assessment To Assist in Achieving Student Equity: Experiences of the CCSSO State Collaborative on Assessment and Student Standards.
PUB DATE 93
NOTE 44p.
PUB TYPE Reports - Descriptive (141) -- Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Academic Standards; *Educational Assessment; Educational Cooperation; Educational Innovation; Educational Planning; Elementary Secondary Education; *Equal Education; National Competency Tests; Program Descriptions; *Research Projects; Science Education; *Testing Programs; United States History
IDENTIFIERS CCSSO State Collaborative on Assess and Studt Stan; *Council of Chief State School Officers; Standard Setting

ABSTRACT

Innovative work being done in the area of educational assessment is explored, focusing on the experiences of the State Collaborative on Assessment and Student Standards of the Council of Chief State School Officers (CCSSO). The following projects currently being carried out by the CCSSO are described: (1) the Secondary Academic Standards and Assessment Project in U.S. History, in which 10 states have joined to plan standards and assessment measures for emerging national content standards in history; (2) K-12 Science Education, an effort by 14 states to plan the development of science education assessment measures; and (3) the Primary-Level Assessment System project, which assists participating states in research, development, and implementation of a developmentally appropriate primary-level instructional and assessment system. Each project includes a research and staff development component. All have developed higher and more appropriate standards and assessments for classroom and state levels. All these efforts may fall short unless they promote the idea that children can and will learn all they need to learn. (Contains 7 references.) (SLD)

Using New Forms of Assessment to Assist In Achieving Student Equity:

Experiences of the CCSSO State Collaborative on Assessment and Student Standards

Edward D. Roeber

CCSSO

Introduction

Almost twenty years ago, the phrase "all children can learn" was first coined. It was a statement of both belief and of fact, gleaned from several years of research based on the database created by the Michigan educational assessment program, the result of a careful research effort of Michigan schools by researchers such as Wilbur Brookover, Larry Lezotte, and the late Ron Edmonds. Termed the "effective schools research," these activities served to counter the then-prevalent idea that schools were relatively unimportant in determining how much each student could learn, since it was believed that immutable factors such as social class, race and parental income were the effective determiners of how much a student would learn. It was just a few years ago that we actually believed that students' learning was determined by these factors, regardless of what classroom teachers strived to do. Such old beliefs were powerful determiners of expectations of educators, parents and the students themselves. This new belief, that "all children can learn," changed our conception of the likely effectiveness of schools. Or, has it?

Can, and Will, All Children Learn?

Throughout the country, too many educators say the words "all children can learn," but place conditions on the meaning of the phrase. Yes, all children who come from affluent, suburban homes can learn. Yes, all children who have two parents at home can learn. Yes, all children who have parents that are concerned about their children's learning will have children who can learn. Yes, all children who want to can learn. Yes, all children who are not black or other minority, not non-English speaking or not handicapped can learn. The reverse side of each of these is that children who are like these don't stand a chance—and

that the public or business leaders who are critical of schools' performance and clamor for higher performance from our schools just don't understand how impossible it is to reach children and youth like these.

Educators too often believe such children and youth can not be helped (because of factors beyond the reach of the students or the educators) and that educators should not make matters worse by challenging these students with educational material they obviously can not master. Indeed, some feel that until the underlying conditions (such as parental income) are improved, learning can not and will not take place. Informally discuss this with classroom teachers, principals or superintendents; the power of the negative expectations held by these educators will overwhelm even the casual observer.

The overall belief in childrens' ability to learn is espoused, but it is so tempered as to render it meaningless, or worse, to signify that we, as the persons paid to help children learn, believe that we can only be effective with only a subset of the student population. Too often, this belief has become a self-fulfilling prophecy dooming significant proportions of our students to educational and social failure.

Are Our Schools Effective?

The problem with this belief that we can only be effective with a subset of the student population is that today we have a greater public awareness and concern for student achievement than at any time in our recent history. This is a good new/bad news situation, however. The good news is that educators have finally awoken policy makers, politicians and the American public to the learning needs of our students. The bad news is that these same

individuals, led primarily by some of our nation's business leaders and policy makers, do not believe that educators are capable of effectively dealing with the situation, so that a number of external solutions are needed. These span the gamut from new external standards, new or expanded assessment programs, and other ideas. These individuals do not trust educators to understand that there is a problem, to know what to do about it, nor to change what needs to be changed. They feel that educators indicate that they can not be effective with many of the students in their charge. They are tired of the excuses.

Why do the national policy and business leaders feel this way? What are the reasons why our political and business leaders are so concerned about the quality of our schools? Are these concerns real or are they the feelings of persons who are ill-informed about schools? Real or not, it is these concerns which has driven policy makers to adopt new programs and set higher goals for our schools and students. Why are they acting in this manner?

First, the business leaders have a real concern about international economic competition. The dominant economic position of the United States has been shaken thoroughly. The United States is no longer neither the lost-cost nor the high-value, higher-cost producer. The blame for this slippage is laid at the low skills and poor work values of American workers. They believe that a real key to economic effectiveness is increasing the ability of American workers to produce goods and services of a higher quality at a lower cost than competitors here in this country and, most especially, those in other countries. Emerging economic and political blocs such as the European Economic Community and the economic unification of the Pacific rim countries, add to this fear. Education is viewed as the major solution to this dilemma.

Second, our business and political leaders feel that our schools are failing our students. Data from the National Assessment of Educational Progress, from various international assessment programs and from research indicates that schools in the United States are simply less effective than their counterparts in other parts of the world. Particularly in the critical areas of mathematics and science, evidence has been compiled that our students fare poorly when compared to those in other developed nations. Rightly or wrongly, poor economic performance is blamed on this poor educational performance.

Third, there is a growing frustration with educators' excuses about lack of student learning, particularly in the face of record increases in the amounts of money set aside for our public schools. A quote from a recent report on the school-to-work transition of American youth effectively makes the point:

"More than any other country in the world, the U.S. believes that natural ability rather than effort, explains achievement. The tragedy is that we communicate to millions of students every year, especially low income and minority students, that we do not believe that they have what it takes to learn, and then they live up to our expectations. All this despite the evidence that they can meet very high performance standards under the right conditions." (America's Choice: High Skills or Low Wages, National Center for Education and the Economy)

Even educators themselves have been critical of the belief system which is prevalent among our schools, as the following quote indicates:

"...schools in a sense construct failure. Labels, categories, and predictions take on a life of their own, fulfilling the original prophecy in the eyes of all the participants--teachers,

administrators, parents and the students themselves." (Tomorrow's Teachers, The Holmes Group)

However, educators disagree about the primary mission of the school. In his presentations to school building staffs, Larry Lezotte talks about three missions of a school which each building has to some extent:

Custodial care: to look after the physical and mental well-being of students;

Screen and sort students: help each student find his or her "place" in life, sorting students into those pursuing academic studies and those pursuing vocational ends or those who will go to college, those who will not;

Educate all students: provide each student with the learning experiences to help each of them acquire all of the important knowledges, skills and behaviors we want without regard to the type of person which the child is nor what type of adult the child may become. ("Overview of the School Improvement Process," Larry Lezotte)

Larry Lezotte challenges the school staffs he works with to select from among these choices the one which characterizes the *primary* mission of the school. Not surprisingly, most schools select the third choice, since educating all children has a more open-ended, enabling flavor to it. However, he then goes on to challenge schools to examine the reality of the teaching and assessment systems which are used in the school and how these impact

students. Do these support the mission which the building staff espouses or does it reveal a very different mission?

Fourth, the skill basis of jobs has changed considerably. Technologies such as computers and robotics have changed the nature of the job. High skills demand high wages, but many jobs now require only low skills and, hence, only low wages are paid. Education is seen as the difference between the two. In addition, many of the new jobs are in service industries, which require additional interpersonal skills not required in old manufacturing jobs.

Finally, the demographics of this country are changing as well. Fewer workers are available, a trend which will become even more obvious as baby boomers retire during the next decade. Also, the proportion of minorities making up the work force will continue to grow; it is this group which schools have traditionally under-served and for whom good employment is particularly difficult to obtain. The pool of available good workers, therefore, is shrinking, unless something is done to address this.

Systemic Reform

For these important reasons, considerable changes are being contemplated for the American educational system. These changes are at the heart of efforts to improve the system so that it serves well all of the students in it. Through setting higher standards for both students and the educational system itself, as well as though devising new or improved means of measuring and reporting student progress, policy makers and others at the national, state and local level hope to create an educational system in which all students succeed.

Most attempts to "fix" the educational system take one or two variables and attempt to make changes in those. Increasingly, however, we are coming to realize that such efforts will not succeed. The current educational enterprise is a system of interlocking responsibilities at the national, state, and local levels. At each level, there are key programs which often interact. For change to be effective, it must occur across the programs at any one level (e.g., the state level), as well as interact with programs at higher or lower levels. The very idea of systemic reform is that it will involve multiple programs at multiple levels, all changing to accommodate a new goal (e.g., setting higher performance standards for students in mathematics). Obviously, it is difficult for several programs at one level to change together in the same direction; it is even more difficult for the components at different level to be in sync and move together. Different programs, moving in different directions for differing purposes, is the norm.

State Collaborative on Assessment and Student Standards

Unlike any other time in our nation's history, the educators, policymakers, and business community and other citizens of this country are united in a pursuit of setting and attaining higher educational standards for the nation's students. Activity is occurring at the national, state and local levels. While the impetus for some is the perceived economic competition which this country is engaged in on a global basis, for others it is assuring that all citizens can survive economically.

The section of the paper reports and comments on one such effort to set higher educational standards and to devise improved means of measuring them Ð the State

Collaborative on Assessment and Student Standards (SCASS), a project of the Council of Chief State School Officers (CCSSO). Following this section, the extent to which this standards and assessment effort—or comparable ones elsewhere—can and will address the important issue of equity in achievement for all students and groups of students (the focus of this paper) will be discussed.

Background

The State Collaborative on Assessment and Student Standards is designed to assist member states in developing the student standards and assessments which are needed by the states to set high standards for student performance. The purpose of SCASS is to improve the quality of the student assessments which the states are developing, as well as to reduce the cost and time required to develop these assessments through collaboration. Two types of activities are envisioned. The first are student assessment consortia in which state curriculum and assessment specialists, content experts and others develop state consensus frameworks and prototypes exercises in various content areas. The assessment consortia serve to share information about emerging assessment strategies in a subject area, to collectively push the boundaries of measurement in a subject area, but generally do not serve to develop an entire assessment program. Such consortia have been established in the areas of mathematics, reading, writing, the arts, social studies, workplace readiness, and technical issues in performance assessment; other consortia (in areas such as science, health education, and foreign languages) are planned for the future. Initial funding is being provided by the MacArthur Foundation, the Ford Foundation and the U.S. Department of Education, Office

of Educational Research and Improvement.

The second type of activity (which will be the basis of the discussion presented in this paper) is the development of actual assessment program components through states working directly together to develop the needed assessments. States pool financial and human resources to collaboratively carry out joint development activities in one or more content areas. Three projects are currently under way: a secondary academic standards and assessment project in U.S. history, K-12 science education, and the development of a primary-level assessment system New projects are being offered in the arts, secondary academic standards and assessment in mathematics, reading, assessment of academics and writing, and the development of a comprehensive language proficiency and academic assessment system for limited-English proficient students. These projects are different from one another in terms of scope (number of grades covered, number of students affected, as well as breadth of changes intended by the standards and assessment components to be developed). In each project, states pay to join in planning and developing one or more of the needed assessments. States which pay to plan the projects are encouraged but not required to participate in the development phase. Each project has different implications for helping achieve equity in student achievement and is described below:

Secondary Academic Standards and Assessment Project in U.S. History

Ten states (Alabama, California, Florida, Hawaii, Illinois, Kentucky, New Jersey, New York, Texas, and Utah) have joined together to plan the development of U.S. history standards and assessment measures which they can use to measure emerging national content

standards in this area in their states. A subset of these states, estimated at about eight in number, will participate in the development phase of this project. A technical support contractor will assist the participating states during development of the assessment measures by carrying out tasks needed by the states to develop, pilot, and refine these measures.

The exercise and instrument development work addressed in the project will include the cataloguing and review of existing resources which states are contributing to this project, as well as the preparation of assessment materials, the tryouts of these materials, and refinement of the materials. During the development phase, the technical support contractor will conduct the training of item writers and lead the development of exercises by a group of item writers selected from each of the states. The contractor will then edit the assessment exercises which the exercise development team has developed, prepare the various tryout forms needed, supply the needed tryout materials, score the resulting forms, and review and revise the exercises as needed. Following the item tryouts, the contractor will assemble various assessment instruments for tryouts of intact assessment instruments. This will include preparing the needed tryout materials, scoring the resulting forms and selecting the exercises needed to assemble reliable and valid assessment forms. The intent is to develop alternative forms of assessment instruments which can measure the emerging national U.S. history content standards with measures that yield indiv dual scores that are reliable and valid. These will be accessed during the scope of the project by the involvement of individuals familiar with their scope within this project.

A variety of assessment strategies will be used, including a) on-demand selected-response, short-answer and extended-response exercises, b) individual- and group-

administered, on-demand performance events, c) extended-response performance tasks or projects, d) portfolios, and other formats. The major product of this project will be a component bank which contains alternative forms of various types of assessments which states and schools can use to assess student and school status relative to the national content standards in this area.

There are several objectives for this project:

a. develop a variety of U.S. history assessment materials and scoring rubrics appropriate for students at the secondary level (grades 10 and 11) relating to the U.S. history framework developed by the participating states (which is based on the framework developed for the 1994 National Assessment of Educational Progress U.S. History project) working with an exercise development team selected from the member states;

b. validate the assessment exercises in the participating states, score the pilot test responses so as to develop more precise administration procedures and scoring rubrics, and develop scaled scores for reporting within and across the assessments;

c. develop several types of assessment instruments for use by the states to assess the national content standards from the validated exercises;

d. validate these assessment instruments so that alternative forms of the instruments are available by the states for use in large-scale and classroom assessments;

Of the three SCASS projects, this one has the most limited scope, affecting one course of study, usually offered at one grade at the secondary level.

K-12 Science Education

Fourteen states (California, Connecticut, Florida, Georgia, Illinois, Kentucky, Massachusetts, Michigan, Ohio, Oregon, Rhode Island, Virginia, West Virginia, and Wisconsin) have joined together to plan the development of science education assessment measures which they can implement in their states. A subset of these states, estimated to be about ten in number, will participate in the development phase of this project. A technical support contractor will assist the participating states during development of the the assessment measures by carrying out tasks needed by the states to develop, pilot, and refine these measures, as well as helping them to conduct research on these new measures. This is a broader effort in two ways: 1) it is a K-12 development effort and 2) this project includes not only development and validation of the measures, but components which include research on the measures and initial efforts towards a staff development program which will support not only the assessment, but the instruction implied by the assessments

As envisioned by the participating states, this project will serve to develop a comprehensive science education assessment system which includes measures appropriate for the assessment of students in large-scale programs, as well as at the classroom level. The measures to be developed, which include conventional and innovative approaches to assessment, will be based on a consensus map of state outcomes in the area, as well as emerging national science

education content standards. The goal is to develop an assessment system which will serve to monitor student performance at the statewide level while assisting local educators to assess students in a manner consistent with emerging ideas of what and how students should be learning in science education. Hence, a system of assessment, with appropriate components at the state and local levels measuring comparable standards, should emerge.

The exercise and instrument development work will include the cataloguing and review of existing resources which states are contributing to this project, as well as the preparation of assessment resources and tools, the tryouts of these materials, and refinement of the materials. The development of the various exercises will be carried out by an exercise development team comprised of several representatives from each of the participating states. During the development phase, the technical support contractor will conduct the training of exercise writers and direct the development of the needed exercises and scoring rubrics. The contractor will then edit the assessment exercises and rubrics which have been developed, prepare the various tryout forms needed, supply the needed tryout materials, score the resulting forms, and review and revise the exercises as needed. Following the item tryouts, the contractor will assemble various assessment instruments for tryouts of intact assessment instruments. This will include preparing the needed tryout materials, scoring the resulting forms and selecting the exercises needed to assemble reliable and valid assessment forms.

A variety of formative and summative assessment strategies will be used, including both on-demand and exercises where students are provided extended periods of time for response, individual- and group-administered performance exercises, observational and interview measures, and other formats. One product of this project will be a component bank which contains

alternative forms of various types of assessments Ð performance, open-ended, and multiple-choice assessment materials. Another product of this project will be the initial research which will be carried out on these newly-developed measures as they are tried out and refined.

Staff development will be needed by teachers, administrators, parents and students to enable them to incorporate these assessment resources into alternative methods for organizing and delivering instruction in science education. It is anticipated that a third purpose of this project will be the development of initial staff development materials, as well as to pilot and refine these. Such materials might include models for curriculum and instruction, as well as the use of the assessment resources developed for this project and already in existence. The contractor will edit the materials (audio, written and visual) prepared by the states and revise these after state have piloted them. There are several objectives for this project:

a. Develop a variety of science education assessment strategies and scoring rubrics related to the science education framework (based on a consensus map of state outcomes in this area, combined with emerging national content standards in the area) appropriate for students in the elementary, middle-school and high school grades working with an educator team drawn from the member states;

b. Validate the assessment strategies and scoring rubrics in the participating states. Score the pilot test responses so as to develop more precise administration procedures and scoring rubrics. Develop scaled scores for reporting within and across the assessments;

c. Conduct research on the assessment strategies and materials, looking particularly at issues in administering and scoring the assessments, as well as the generalizability of tasks, as well as interpreting and reporting the assessment information;

d. Develop initial staff development and assessment training strategies and materials (audio, visual and print). Disseminate information on the project to others to begin the development of resources lists of persons and products;

The science education project will incorporate a systems approach to change in assessment, but do so within a typical program of instruction.

Primary-Level Assessment System

The purpose of the Primary-Level Assessment System project is to assist the participating states in the research, development and implementation of a developmentally-appropriate primary-level (kindergarten through grade three) instructional and assessment system which is comprised of a) the staff development component which encourages states and local districts to transform the primary-level classrooms to thinking classrooms, as well as assists local educators to make this transformation, b) systems to support the documentation and assessment of student progress, using multiple approaches to the assessment of students across the primary grades, c) systems for scoring or grading student responses, including methods of moderating a variety of pieces of information for individual students and d) systems for reporting student performance to parents, students, educators and others. The goal is to develop a continuous assessment

process appropriate for the classroom level, as well as to be accumulated for use in large-scale assessments of the early grades.

Participating states have joined together to develop a model for instruction and assessment which is unique in several ways. First, it is systems-based, so that it corresponds to a thinking curriculum based on principles of development and learning. Second, it seeks to show the changes in instruction embedded in a thinking curriculum. Correspondingly, it also seeks to show student performance over time and highlight exemplary student work. Third, it will use a variety of assessment strategies. Fourth, the assessment process will extend over several grade levels, allowing more in-depth and on-going assessments to be reported. Fifth, the project aims to be, at the same time, interdisciplinary and discipline-based in approach. Finally, this project itself is unique because it will be developed by a collaborative team drawn from the several members which will share the tasks and resulting project products. The project is based on pioneering work done in California, Michigan and elsewhere. This is clearly the most comprehensive of the three current SCASS development projects.

Also included in this project are research studies on critical issues related to the development and implementation of the primary-level assessment system and the staff development and dissemination activities which are needed to assist teachers, administrators, parents and students to learn about and use this system appropriately. The types of staff development and information dissemination activities include the range of instructional and curricular models on which this system is based, portfolio management strategies, and the use of resources related to the new assessments.

The contractor will be assisting the states to develop and pilot both the staff development

resources and strategies, as well as the assessment resources and materials needed. This includes helping to define and carry out the research activities which underlie both efforts. These activities are based on several assumptions and activities. The information cited below summarizes some of the changes which the participating states hope to make in primary-level instruction:

> "Experts agree that meaningful change must be systemic. In other words, change must occur in all aspects and levels of the educational system. This system extends far beyond the walls of the early childhood classroom, into the school building, the community... The term systemic also suggests that change in one aspect of the educational system will affect other aspects as well.... (There) are several important conditions necessary for systemic change in early childhood education:

1. We must focus on **how** children develop and learn in order to meet their cognitive, social, emotional and physical needs. This calls for early childhood educators to have a thorough understanding of child development, and be able to implement that knowledge in all aspects of their classrooms.

2. The primary school must have the support of the entire community, including the elementary and secondary school staff. Developmentally appropriate practice includes smooth transitions from one grade to the

next, so teachers must work together to insure common curriculum and assessment practices that provide continuity throughout the child's academic career.

3. Parents must be encouraged to take active roles in the education of their children. Measures must be taken to involve them in all aspects of their child's growth and development in school, allowing them to be partners in their child's education. This necessitates open communication, problem-solving, and collaborative decision-making between and among administrators, teachers, and parents (NCREL, 1992)"

The consortium of states participating in the project has stated the following principles and beliefs about assessment and curriculum reform:

a. The system should be congruent with the common outcomes/goals identified by the states participating in the SCASS Primary-Level Project. These goals, will include broad outcomes such as communication, collaboration, quantifying, thinking, problem solving, self-awareness, and responsibility at developmentally-appropriate levels.

b. Since the ultimate purpose of assessment is to support student learning and development, the student must be the central focus of this system, including the ability to reflect on her/his own learning.

c. Teachers are central to building a developmentally-appropriate curricula for young children. The effectiveness of an assessment system rests on knowledgeable, reflective teachers.

d. Children learn best when their physical and psychological needs are met and they feel safe and secure. Assessment activities should be embedded in procedures that reflect the ongoing life of the child-focused classroom and typical activities of the children in this risk-free environment.

e. Children learn through social interaction with adults and other children. Assessment should be a collaborative process involving children and teachers, teachers and parents, school and community. Information from parents about each child's experiences at home should be used in planning instruction and evaluating children. Information about children's school progress should be shared with parents in language they can understand and be communicated in a way that promotes parents' confidence in their children's or their own ability, and values the language and culture of the family.

f. Children's learning builds on prior learning and reflects a recurring cycle that begins in awareness and moves to exploration, to inquiry, and finally to utilization. Childrens' development and learning are characterized by individual variation. Assessment should focus on what children can do and allow individual diversity of learners and allow for differences in styles and rates of learning.

g. Children construct knowledge through repeated experience involving interaction with people and materials. Assessment procedures should describe clearly and accurately how students do on a range of tasks over an extended period of time.

h. Children learn through play. Children's interests and "need to know" motivate learning. Assessment events or procedures selected should work together to form a composite, portrait and story, of the child.

i. Staff development is an essential ingredient for the success system and must be extended to administrators, parents, students, and the broader community. Models of staff development should be based on teachers' generative processes of learning.

j. This assessment system should provide accurate, meaningful, and appropriate information for identified stakeholders.

Based on the above described principles and beliefs, guidelines for the program evaluation and accountability functions of the primary-level assessment system are as follows:

In constructing assessment procedures related to evaluating programs or determining program accountability, no other stated principles of curriculum or assessment are violated.

In evaluating how well the program is meeting goals for children and families, judgements of student accomplishments should be collected, quantified and summarized by teachers.

Program evaluation should use multiple measures of progress in all domains to evaluate the effect of the program on children's development. Observations, interviews, behavioral ratings, and inventories should be included in program evaluation. Standardized, multiple-choice achievement tests are strongly discouraged before fourth grade.

In addition to student performance, program evaluation should take into account the contexts and opportunities in which learning occurs in the environment in and surrounding the school.

There are several objectives for this project, based on the work plan. Each of the objectives is to be carried out using teacher teams is in the member states. The objectives of this project are as follows:

a. Develop a plan for a model assessment system which can be used by teachers and students. The plan should present an approach to linking research, development and implementation in ways that bring together assessment, instruction, curriculum and staff development into an integrated system of student learning, instruction and assessment.

b. Develop ways for the sharing of resources related to this model among member states. The contractor will catalogue and disseminate the range of materials including print, audio, video, cd-rom, and electronic forms of materials, from five areas of interest to this project: instructional strategies, assessment strategies, staff development strategies, public information and dissemination strategies, and research findings.

c. Provide a variety of assessment strategies related to this model for students in the primary grades (kindergarten through grade three).

d. Provide the staff development materials and strategies related to this model which are needed to implement the assessment system within the state and classrooms.

e. Assist the member states to pilot the staff development, assessment and instructional strategies.

f. Finalize the staff development, instructional, and assessment strategies and materials based on pilot information and reviews by the member states and others.

Clearly, the Primary-Level Assessment System project is the most comprehensive of the SCASS projects. It is certainly the most ambitious, too.

Achieving Equity Through Assessment

The purpose of this paper, the context in which it is being written, is to report on innovative work being done in the assessment development area. Certainly, the motivation for doing such work is helping schools to more effectively serve the needs of all students, both by challenging the standards to which schools are currently striving to achieve, as well as the measures used to measure whether schools have been effective with individual students, as well as how the instructional program can be improved for the future. In these ways, thoughtful,

high-level assessment can serve to help schools achieve higher levels of educational performance for all students. This next section tackles some tough questions regarding equity in student performance. These are tough partly because they raise issues of what are the purposes of schools. They are tough also because they raise thorny questions of individual versus group will, as well as touching on core values of our society. However, they must be addressed squarely if the avowed purpose of helping all students to learn all what they need to learn can ever be achieved

What is Equity? What is Equity in Achievement?

Several definitions of equity are possible. Each of these definitions implies different types of programs needed to achieve equity. Hence, it is important to carefully consider our definitions. For some, the definition of equity is "equal opportunity." Translated to the classroom, this means that each teacher can assure that they have provided a comparable amount and type of instruction to all students. Hence, if one group of students spends two months studying algebraic concepts in fifth grade all students should spend the same amount of time doing so. One obvious problem with this definition is that it does not take into account the natural differences in learning rate and style between individual students and groups of students. A month of time for students with adequate prior knowledge and appropriate preparation may be sufficient. Several months of instruction for students lacking these may be insufficient. Essentially, the dilemma with this approach is the conflict between "the two moral imperatives of teaching that teachers should treat all children equally and that they should individualize instruction (Kennedy, pg. 15)."

This gives rise to another definition. Simply put, this definition defines equity in instruction as spending the time which each student needs to achieve the coomon expectations and material which is deemed to be important. A common set of expectations and perhaps instructional design and materials is provided to all students. If the algebraic concepts introduced in fifth grade are important, then all students should achieve these. If some take a month to do so, and others require two months, so be it. The teacher will (somehow) manage the classroom so as to provide students the opportunity to acquire this learning. Since this is not an insignificant management task (and one which most teachers are not experienced in doing), the typical solution to this dilemma is to pull the students requiring extra learning time from the regular classroom and to provide them with "remedial" instruction in another setting. The students struggle with learning the important concepts, often out of context and often out of sequence with what is happening in the classroom. Is it no wonder that the "remedial" education which is provided in programs such as Chapter 1 so often serve to stunt the educational growth of the very students they are designed to serve?

A related definition of equity is providing instruction which is directed at common outcomes but which is equally motivating to students. Hence, if we wish students to understand the broad social theme of interactions of peoples, we might use different world history content so that (hopefully) the context being used, which is variable and could include the interactions of peoples and cultures at many times and places in the world, will "appeal" to the students we are teaching, thereby learning the broader theme and being able to apply it flexibly in a variety of settings. Hence, if the material is maximally motivating to students, then we have achieved equity when we provide comparable instruction. Is this instruction, keyed to the student, any

more helpful in helping students to achieve, however?

A more appropriate definition of equity may arise from projects such as the SCASS Primary-Level Assessment System. In a project of this nature, there is a desire for all students to achieve, but the targets the achievement, as well as the methods and materials of the classroom are not of a fixed nature, with school serving to bring each student as far as possible in achieving these fixed goals. Instead, the definition of equity possible in such a project serves to focus on the student, so that the classroom serves to encourage each student to learn, and the objects of this learning may legitimately differ from one student to another, differing based on family background, personal abilities and interests, and the interaction of the student with the learning environment of the classroom. Students from different backgrounds will have different learning interests and may have different learning styles. These not only are recognized, they are also honored in the classroom, and serve as the basis for planning learning experiences for the students.

A major premise of this type of model is that the purpose of schools is not to impart a fixed body of knowledge to each student (in a fixed period of time), but to provide opportunities to encourage students in their natural love of learning. The result will be classrooms filled with students each pursuing personal learning activities and goals of equal value. Presumably in these classrooms, the more important goal is to foster the love of learning, not the memorization of content. At the higher grade levels, schools serve to provide a place where students are actively engaged in thinking, not memorization, so that content knowledge is important only to the extent that it is useful in enabling a student to conduct an experiment or test a hypothesis, but not focused on in itself. Equity in these classrooms is not defined in terms of comparable

achievement on a fixed instrument, but comparable achievement on a variety of assessment tools appropriate for the learner. Since each student is actively engaged in pursuing very individual learning projects, equity in these classrooms is equal to comparable student engagement (and teacher effort on behalf of each of the students to maintain and encourage the active engagement) in learning. It implies the equal valuing of the learning of all students, individually and collectively.

The impact of the assessment components related to instructional models on the equitable achievement of students depends on our operational definition of equity. Is it equity in terms of instructional time? Is it equity in terms of achieving the same performance? Is it equity in terms of equal engagement in active learning? Does our instructional model value content? Does it value fixed processes? Does it value multiple approaches to problem solving? In some sense, whether and how equity is achieved is dependent on the instructional model which is adopted for our classrooms.

Why has Equity Not Been Achieved?

The simple answer to this question is that, as mentioned at the outset of this paper, the persons who work in our schools (as well as the students and parents served by our schools) know that they can not effectively serve students. They know that despite their best intentions and hard work, some students just wonÕt learn. Often for very benign reasons related to social conditions surrounding the students (rarely due to internal student reasons), students are seen as incapable of learning the fixed set of material which is presented to them. Is it no wonder that as early as third or forth grades, these students learn that they can't succeed in school?

If our definition of equity is providing equal access to instruction, that is, teaching all students an equal amount of time, then we know that students differ in learning rate and motivation, so we can not be effective. If we define equity as all students learning an equal amount in a fixed period of time (e.g., a school year), our strategies to provide different periods of time for learning have too often served to set students who need extra help behind the other students. Our remediation has too often served to delay and retard learning and eventually convince the students, parents and teachers that they are failures. Under this definition of equity, we can be successful only if 1) students are allowed to progress at their own pace, 2) students take the time needed to learn important material, and 3) promotion from grade to grade occurs when sufficient learning takes place to warrant promotion (that is, we neither retain nor socially promote students, so that each grade level is made up of students at different chronological ages). In either of these models, the failure for performance is "owned" by the student.

In the system described which underlies the Primary-Level Assessment System, failure is one or more students who exhibit a disinterest in learning. Failure is "owned" by the teacher, who has been unable to find learning activities which will sufficiently motivate the student. The teacher's strategy is to keep trying to find the activities which are engaging to the student and which help the student learn.

How Can Assessment Help Achieve Equity? Will New Forms of Assessment Help or Hurt Equity?

It certainly is appealing to focus on changes in the assessments used in schools as a direct means for changing schools. Throughout the past twenty years or more, policy makers have

mandated new large-scale assessment programs in order to hold schools or students accountable for achievement, and, indirectly, to change schools in the process. In the 1970's and the 1980's, the favorite tool of the policy maker for changing schools has been some form of large-scale assessment. It is a popular approach to changing schools because it is a relatively easy and quick method of changing a complex social institution. By holding educators responsible for outcomes, but not "messing with" the resources or programs, change can be thrust upon schools without waiting for the changes to be incorporated in school programs and personnel.

Several waves of assessment reform occurred during the past two decades. First, it was state assessment programs in the early 1970's measuring common outcomes across schools in order to hold them accountable. Next, it was minimum competency tests (in the mid- to late-1970's), often tied to high school graduation or promotion. Then, assessment expanded into other content areas (in the early 1980's), so as to encourage school improvement in a number of areas and not to focus on just mathematics and reading learning. Then, in the mid-1980's, attention was piad to measuring higher-order thinking skills. More recently (since 1989), gateway assessments, to be given in tenth grade and tied to college or vocational preparation, have been adopted in several states. These and other instances are illustrations of how policy makers have used large-scale, state and national assessments, to overtly but indirectly change schools.

Thus, it is not surprising given our concern about achieving equity that changes in assessment are viewed as the key element of change. Proponents of alternative forms of assessment have charged that the nation's current preoccupation with multiple-choice measures of student achievement has served to keep minority and poor students from achieving. These

advocates indicate that if we shifted to other means of assessment, such as more authentic performance assessments, at least some of the differences in achievement would disappear. Having students write, carry out experiments, work in groups to carry out projects, develops exhibits of learning, and maintain portfolios to document changes in learning over time are all illustrations of the alternative forms of assessment which proponents advocate. However, others have expressed concern that the multiple-choice tests may actually be easier, more accessible measures for these students and that these alternative forms of assessment, rather than serving to eliminate the gaps in performance among students, may instead widen them. Others ponder the ability of assessments external to the schools to bring about any significant change one way of the other. Can assessment bring about significant, positive change in equity of achievement?

To some extent, each of these points of view is correct! The forms of assessment predominantly in use today may disadvantage certain groups of students. Alternative forms of assessment may ameliorate these differences, or such forms of assessment may serve to exacerbate the differences. In either case, conventional and new forms of assessment may bring about little in the way of lasting change in the manner in which schools are organized or go about their business (or, may significantly and more or less permanently change the schools).

How can all of these occur?

The key to whether the form of assessment (whether multiple-choice or one of the many alternative forms) has a positive or negative impact on schooling is the manner in which the assessment reflects what the school is attempting to do. Too often the assessment itself is *the* "wake-up" call to change. It is the first (and, too often, only) indication that the outcomes, the

instructional methods, the materials to provide instruction and the methods of teaching and learning need to change. While wholesale, large-scale changes in assessment are efficient in that they can be carried swiftly and implemented in a rather brief period of time, this relative speed is a disadvantage in terms of changing the schools. As a result, changes in the types and contents of assessments used rarely bring about the desired changes in and of themselves. Too often, such changes in assessment bring about superficial compliance, with schools concentrating on test preparation and coaching just before the big examination, rather than on sustained changes in teaching and learning implied by such assessments. Several recent studies have illustrated the manner in which such compliance takes place in schools in the face of the demands of large-scale assessment programs.

In recent years, the idea that assessment, rather than being the sole tool of change, is instead but one important means of changing schools, is becoming more prevalent. Hence, school change and improvement is seen as occurring best where several changes are occurring simultaneously. While assessment is a key element in bringing about the changes desired, it is viewed as only one important element among several other activities in changing schools. In addition, greater knowledge of the processes of how individuals and groups change their behavior when a new innovation is developed and disseminated is available. This has helped us better understand the process of change which needs to take place within the schools. Both of these have combined in the idea of "systemic change," a concentrated look at the elements which need to be changed together in order to bring about lasting change, as well as the process which should be used at the classroom, building, district and state levels to foster lasting, meaningful change.

What are the Key Elements of the System Which Will Help all Children and Youth Achieve High Standards?

The concept of systemic change means that for lasting change to occur, all of the important elements of the entire system needs to change, and that such changes should all be in the same direction. For such change to occur and to be sustained, all important parties in the system have to want to change and to know how to do so. Hence, although assessment may be important in notifying schools (and students) of what types of learning are deemed to be important, how such learning will be shown and what rewards or sanctions will be applied, such assessments rarely show teachers how to help students acquire such learning or more fundamentally, why such change is needed or desired. Such assessments are presumably based on content standards which may be quite different than what schools are currently using as the basis for instruction. Therefore, without additional assistance, teachers may be at a loss as to what to teach, what to use to teach it and how students should learn the content standards, or why they need to change.

A program of systemic change begins at the same point, that is, with the content standards. However, rather than simply assessing these and reporting the information, the systemic change process also seeks to develop alternative instructional materials (if such materials are deemed to be relevant), alternative instructional and learning models appropriate to the outcomes desired, and the staff development programs or course needed by teachers to make the shifts in teaching and learning desired. Several elements, including content standards or curriculum, instructional design, instructional materials and learning strategies, school improvement training, staff development and assessment must work together, perhaps driven by

the "threat" of the assessment. As these are developed and implemented together, the assessment program encourages teachers to take advantage of the training being offered, and the training provides practical ideas about what to do to address the outcomes.

As indicated above, attention is also paid in the systemic change model to the *process* of change. While external demands may cause some of us to change effectively, such demands rarely cause the types of changes we desire to occur on a widescale basis. More likely, they cause minimal compliance or outward rebellion. People do not like being coerced into changing. Hence, greater attention is being paid to help schools staffs sense the need for change, to actively pursue the process of change (with the idea that there is no one "correct" way to do this) and that what is important is the personal ownership of the need to change and the goals of change by each member of the school staff. This attention to process is an important element in helping to bring about systemic change, since it serves to actively engage all members of the school faculty in seeking out reasons to change, the areas in which change is needed, and how such changes will be carried out.

How Should Equity Concerns be Addressed Within Standards and Assessment Projects Currently Under Way?

Given this broad view of systemic change, the question remains about whether new standards and assessments can bring about equity in student performance. Can such new forms of assessment serve to close the gaps in student performance which are so well documented today? Or, will such new forms of assessment merely cause the current gaps to widen and

worsen, so that opportunities for all students to acquire the higher standards needed for good employment will simply not be available? Looking at the three projects which were described earlier in this paper, there may be good reasons for optimism. Since these projects represent the collective ideas of the several states involved in planning and developing the assessment components, it is interesting to look at the elements which they value -- in essence, where and how do they wish to "spend their money."

All three projects include a different definition of the content of the area to be assessed than currently in use in the area. While the extent of the differences between the standards that will serve as the basis of each project and those in vogue in schools does vary, all three projects have some things in common. All three projects imply a more active learner who is using the ideas and information found in the area to do something. Each project indicate less importance to content coverage and memorization and much more in seeing and understanding the connections between ideas and events. Hence, all three projects stress the active learning process which engage each student more intimately in thinking.

All three projects include a portfolio component to the project. Why is this important? All three hope to encourage students and teachers to document learning which is taking place on an on-going basis and which is related (in at least the Science Education and the U.S. History projects) to the large-scale assessments of the same standards also included in the projects. Hence, as conceptualized, the projects hope to encourage on-going assessments at the classroom level which certainly would use and support alternative instruction and learning. In addition, by building classroom and state-level components together, the beginnings of a coordinated standards/assessment system at the state and local levels has started.

Two of the three projects, the Science Education and the Primary-Level Assessment System projects, formally recognize the need for staff development in learning about the new standards involved in the project. In each project, at least some attention will be paid to the need to help teachers learn how instruction could be provided and how students could learn. In each of these projects, not only are teaching/learning models be demonstrated, but the projects are also attending to the processes by which teachers learn about and adopt or adapt these changes within their classrooms. This is the most important element in the Primary-Level Assessment System project. Bu directly addressing the teacher, both projects hope to teach teachers about the new outcomes, but more importantly, about new means of learning these outcomes, so that all students can learn more.

Research on the development and implementation of the assessment components, as well as the staff development and other aspects of the projects is an important element of the projects. While some of such research will focus on the quality of assessments which are developed (e.g., whether the administration of performance assessments in science classrooms is conducted in a reliable manner, or how such assessments are related to more conventional measures), attention is being paid in all three projects to the impact of the assessments on teachers and students. The equity concern is at the heart of this set of investigations which is built in to each of the projects as a research component.

Hence, all three projects are attending to the type and level of content standards and curricula which all students need in order to succeed in higher levels of education or outside of school. All three are striving to change the model of instruction used in the classroom (two of the projects directly), as well as to support this new model with classroom assessments

predicated on the standards and the models of instruction. Two have built at least the initial attempts to provide the staff development needed to change schools as well as to undertake the research which will begin to help to answer questions regrading the effectiveness of the instruction, assessment, and staff development in helping all students to acquire the new, higher standards.

As defined and planned, each project is attending to at least some of the major elements of systemic change needed to bring about higher levels of learning for all students.

Summary

This paper has presented some of the reasons why all of our students do not achieve the standards which set for them. Three projects of the states currently being carried out by the Council of Chief State School Officers were presented and described. In each, higher, more appropriate standards have been set and assessment measures for the classroom and state levels are being developed. In addition, each project includes a research and staff development component. Effective change was defined as a process which includes both an attention to the programs at any one level, as well as attention to how the programs at one level interact with those at another level. Both are critical for changing schools. Assessment is most effective in changing schools when it is considered to be one of the programs at the state or local level which is included in the systemic change efforts.

All of these efforts may well fall short in helping students learn and achieving equity, however. As indicated at the outset, programs such as these will succeed only to the extent that they serve to promote the more important idea that indeed all children not only can, but *they*

will, learn all that they need to learn. While setting higher standards, changing the assessments, and helping teachers learn different approaches to instruction are important, perhaps the most important variable in achieving equity in student performance is the personal sense of efficacy which each teacher, school administrator, support personnel, as well as parent and student, feels. The efforts in assessment, particularly when coupled to other changes in a broader, systemic effort for change, may help to encourage, support and empower us. Much important, ground-breaking work has begun nationally and at the state and local levels. However, without the will of each of us to assure that all students will learn, these changes will not help all of our students to learn all that we value and equity for all students will remain an elusive target.

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This gives rise to another definition. Simply put, this definition defines equity in instruction as spending the time which each student needs to achieve the common expectations and material which is deemed to be important. A common set of expectations and perhaps instructional design and materials is provided to all students. If the algebraic concepts introduced in fifth grade are important, then all students should achieve these. If some take a month to do so, and others require two months, so be it. The teacher will (somehow) manage the classroom so as to provide students the opportunity to acquire this learning. Since this is not an insignificant management task (and one which most teachers are not experienced in doing), the typical solution to this dilemma is to pull the students requiring extra learning time from the regular classroom and to provide them with Òremedial" instruction in another setting. The students struggle with learning the important concepts, often out of context and often out of sequence with what is happening in the classroom. Is it no wonder that the "remedial" education which is provided in programs such as Chapter 1 so often serve to stunt the educational growth of the very students they are designed to serve?

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