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**PERFORMANCE-BASED ASSESSMENT: LESSONS
LEARNED FROM LEADING SCHOOL DISTRICTS**

Submitted by:

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May 1994**

***The views expressed in MERC publications are those of individual authors and not necessarily those of the Consortium or its members.**



Executive Summary

There is sentiment among educators in the United States to change traditional methods of measuring student achievement. Many of those favoring a change advocate adopting performance assessment. This project examines practices in three school districts that are recognized as leaders in the development and implementation of performance assessment programs. The research addressed three questions:

1. In what ways is performance assessment used for instruction in selected school districts?
2. In what ways is performance assessment used for accountability in those districts?
3. How much and what types of support are provided by the districts for schools that use performance assessment?

Three districts were selected for study after telephone interviews with consultants, school district officials, and staff members in state and federal education agencies. Criteria used to choose the districts were: (1) The district had employed performance assessment for several years; (2) Performance assessment was used in subject areas other than or in addition to writing; and (3) An individual in the district who was knowledgeable of the performance assessment program was willing to answer questions about it.

The three districts studied were Langley, Colorado; Hamilton, New York; and Davidson, Illinois. All were suburban districts with enrollments ranging from 1,000 to 16,000 students. Two of the districts offered K-12 programs, but Davidson was a high school district.

Several factors contributed to the decision to introduce performance assessment. In Langley, the district stated that better assessment methods would "provide clear targets for students and school personnel," make personnel more accountable, and provide better data to use in improving our instructional program.

In Hamilton, the Assistant Superintendent said, "By addressing assessment, we felt we could address instruction." The intent was to encourage teachers to use more student-centered instructional methods. In Davidson, the Assistant Superintendent expressed the hope that the program would help students to learn, "It's not done until it's done right."

Uses for instruction. From an instructional point of view, three advantages to using performance assessment were identified: (1) Specific descriptions of task requirements help students better understand what they are being asked to do; (2) Detailed information on scoring helps clarify for students how their work will be evaluated, and (3) The fact that a task has inherent significance independent of its educational applications helps engage student interest and motivation. In Langley and Davidson the identification of broad instructional goals helped provide focus and direction for instruction. In Hamilton, performance assessment was adopted as an addition to a commercial curriculum program that had been installed by the district.

To help students understand assignments, the districts collected samples of work and made copies for all students. These samples, called exemplars, were used by teachers to illustrate what was to be included in an assignment and acquainted students with the level of quality expected. In addition to the exemplars, teachers prepared rubrics and anchor papers for their own use. Anchor papers consisted of samples of student work that had been scored using rubrics prepared for that purpose by teachers.

Uses for accountability. Accountability was emphasized in the application of performance assessment in both Langley and Hamilton. The latter adopted an assessment policy which identified the purposes for performance assessment and communicated to both parents and teachers what the district was attempting to accomplish through performance assessment. Langley required schools individually to develop plans to achieve the district-wide instructional goals. The Hamilton policy identified several purposes for assessment, including providing information on student progress to teachers and students, establishing instructional goals, monitoring student growth, adjusting instructional strategies, communicating student achievement to parents and others, and evaluating programs.

Administrative regulations recommended allowing students "multiple opportunities" to improve the quality of their work, a feature that was controversial with some parents. The regulations also recommended using "real world" problems or situations for assessing students' work; using portfolios; allowing students to develop open-ended problems with multiple solution paths; and requiring assessments that included demonstration of cumulative understanding rather than mastery of discrete facts.

Graduation requirements. High schools in Langley developed plans for implementing performance assessment. Langley High identified 19 outcomes that, beginning with the class of 1995, students would be required to perform in order to graduate. Among the requirements were: (1) Speaks, writes articulately and effectively; (2) Reads and

listens actively; (3) Uses another language; (4) uses research and problem-solving to qualify and quantify information, to make distinctions, and to make decisions; and (5) Understands the importance of ethical conduct.

Implementation of performance assessment. District offices provided support to implement performance assessment in schools. Support included staff development activities, policy statements, public information sharing sessions, and changes in district testing policy. Among the issues faced in implementing performance assessment were whether to use a top-down or bottom-up implementation strategy. Two districts used a top-down approach, whereas the third employed a bottom-up strategy.

Community involvement was another issue that had to be dealt with. In Davidson the process started with a series of conferences and seminars for teachers, board members and others. Hamilton kept parents informed about changes in instruction and assessment through committees and parent-teacher conferences and with presentations to community and parent-teacher groups. The schools held annual meetings for parents at which teachers explained student evaluation. Teachers shared with parents the portfolios assembled by children in language arts and science. Teachers also explained the use of rubrics and invited parents to participate in evaluating their children's portfolios.

When community opposition to performance assessment materialized, district offices helped clarify issues and responded to critics. Langley made relatively little effort to involve parents and community members in its initial planning. However, after his experience with community opposition in Langley, Mike Bloom recommended that districts anticipating adopting performance assessment "communicate aggressively" with the public in order to allay people's fears about the proposed reforms. He also advised educators not to assume that critics will be content simply serving as a member of an advisory committee. He said that people want to have an active voice in decisions about school programs.

An early challenge to the proposed revisions in Davidson came from a group called Friends of the Gifted and Talented. Members of this group were concerned that gifted students might be denied the recognition they deserved for the work they were doing. For example, the group questioned whether a student who took several trials to master new material should receive the same grade as one who learned it in less time. Dr. Kelly's response to these questions was to review the purpose for evaluating students. "Are we trying to sort and select students," she asked, "or is our mission teaching for learning?"

In all three districts, teachers' knowledge of and attitudes about performance assessment influenced their acceptance, or lack of acceptance, of the innovation. The introduction of performance assessment aroused concerns among teachers who were charged with implementing it. Teachers in Langley expressed concern about whether students could master the general learning outcomes required for graduation. Administrators reported that some teachers who opposed performance assessment expressed their concerns openly to parents.

Ensuring an adequate level of quality in demonstration tasks developed by teachers was a problem in Langley. Major revisions were required for most of the tasks prepared by teachers, which increased developmental costs. Mike Bloom estimated the cost of preparing a high-quality demonstration task between \$900 and \$1200 per task.

In Langley, it became apparent early that teachers were not well informed about performance assessment. The district offered inservice workshops to show teachers how to incorporate principles of assessment design into their instructional planning.

Hamilton also sought to facilitate the introduction of performance assessment by reducing the amount of time devoted to standardized testing. Whereas standardized tests had previously been administered at all grade levels, the district moved to limit their use to grades 3 through 6.

General conclusions. Several conclusions about the use of performance assessment can be drawn:

1. Our view of accountability is shifting from requiring completion of specified courses and accumulating credits to demonstrating proficiency on authentic tasks. The districts studied in this project proceeded slowly, retaining conventional accountability procedures such as report cards and course requirements while adding the new requirements. This overlap in accountability produced some confusion.
2. Performance assessment projects require that teachers be very specific about what is expected of students. Teachers need to prepare detailed explanations of requirements in writing.
3. Performance assessment also requires teachers to agree on standards for evaluating students' work. In these districts the standards fluctuated during the early years of the program, as the quality of students' work improved.

4. The districts found that teachers understood less about performance assessment than district administrators had assumed. Therefore more staff development had to be provided than originally planned.
5. Teacher concern about performance assessment was attributed by administrators to lack of information, but other explanations could account for it. For example, some teachers were uncomfortable with a program in which students were allowed multiple opportunities to complete assignments and in which many more students than usual earned As.
6. Rubrics, anchor papers, exemplars, and checklists were endorsed by the districts as effective ways of informing students of the schools' expectations, helping students organize their efforts and guiding teachers in scoring students' work.
7. Some students needed assistance to achieve the higher standards that accompanied the introduction of performance assessment. Davidson reassigned teachers from hall duty and bus duty to assist students who needed help.
8. High stakes assessments--for example, tests that students must pass in order to receive a high school diploma--must be technically sound and must have credibility with parents and the public.
9. Parents of children who are successful in school usually do not see the need for performance assessment and must be persuaded of its value.
10. Preparing demonstration tasks is expensive and time-consuming. If teachers are expected to develop these measures, they will need training and assistance.

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Preface

The research reported in this paper focuses primarily on three questions, "How do leading school divisions use performance-based assessment for instructional purposes?" "How do leading school divisions use performance-based assessment for accountability purposes?" "How do leading school divisions implement performance-based assessment in their schools?" The answers to these questions were gathered through a case study approach of three leading school divisions.

Background

In June 1993, the Metropolitan Educational Research Consortium's (MERC) Policy and Planning Council developed a research agenda to gain greater understanding of accountability and assessment issues. They appointed a study group from the MERC membership to guide the research and dissemination activities. The study group includes Lisa Kaufmann, Chesterfield County Public Schools; Mona Harrison, Colonial Heights City Public Schools; Carole Urbansok-Eads, Hanover County Public Schools; Sanford Snider, Henrico County Public Schools; Linda Hyslop, Hopewell City Public Schools; Doris Ownsby, Powhatan County Public Schools; and Betty Williams and Richard Williams, Richmond City Public Schools.

The study group determined it needed some foundation information and sponsored an issue seminar with Dr. Grant Wiggins as the featured speaker to gain an understanding of issues surrounding performance-based assessment. Secondly, the study group under the direction of Dr. John Seyfarth, Principal Investigator of the Study, reviewed the literature and answered fourteen basic questions that emanated from the issues seminar. Those questions are as follows:

1. How do authentic assessment, performance assessment, and alternative assessment differ?
2. What are the pros and cons of performance assessment?
3. What strategies are being used by states, school divisions, schools, and teachers in the name of performance assessment?
4. In what subject areas are performance assessments being used?
5. How is performance assessment being implemented, and what are the most likely effects on teaching?
6. How do teachers use performance strategies to assess students?
7. How are teachers being trained in performance assessment?
8. When is it appropriate to use performance assessment, and when is it appropriate to use standardized multiple-choice tests?
9. What are the implications of performance assessment for norm-referenced tests?
10. How do we aggregate performance assessment data for policy and accountability purposes?
11. How do we insure that performance assessment data are reliable?
12. What are the implications for local assessment programs, such as end-of-course testing?
13. How does performance assessment relate to the Outcome Accountability Program in Virginia?
14. What are the implications of State Department of Education efforts in performance assessment for school divisions?

From the information provided by the issues seminar and the performance-based assessment the study group then turned its attention as to how school divisions across the country are implementing performance-based assessments. This document Performance-Based Assessment: Lessons from Leading School Divisions is the result of the final piece of work by the study group.

Dr. John Seyfarth, Principal Investigator, and Jeanne Schlesinger, MERC Research Fellow, worked with the study group and conducted the research. Gwen Hipp assisted the team and study group in meeting arrangements. Susan Goins assisted in document preparation.

John Pisapia
Director, MERC

Introduction

There is strong sentiment among educators in the United States to change traditional methods of measuring student achievement. Many of those who favor such a change advocate the adoption of performance assessment. This project examines practices in three school districts that are recognized as leaders in the development and implementation of performance assessment programs in schools. Data were collected by interviews with district administrators and from documents. The findings of the study are presented in this report.

Performance assessment refers to a process for appraising learning that requires students to perform tasks designed for the purpose of demonstrating specified knowledge or skills. These tasks are designed to closely resemble problems that might be encountered in settings outside of schools and include activities in which the student solves a problem, identifies a function, or makes a decision (Tuckman, 1988). Performance assessment tasks require students to construct rather than select a response and to focus on the process of problem solving rather than simply obtaining a solution. Several characteristics set performance assessment apart from other ways of measuring achievement. Performance assessment tasks appear in a variety of formats and often involve cooperative work. The results of the students' work must be scored by qualified judges (Seyfarth, 1993).

These types of measures have been proposed as replacements for the standardized multiple-choice tests now used in schools in most states. Performance assessment measures are believed to be more valid indicators of learning than the standardized tests because they capture some of the complexity of real-world activities by requiring students to provide an organizing framework for a problem, collect and interpret information, and draw on a variety of knowledge and skills.

Research questions

The study was carried out by a team consisting of nine members from districts that belong to the Metropolitan Education Research Consortium (MERC) and staff members from the School of Education at Virginia Commonwealth University. The research design addressed three questions:

1. In what ways is performance assessment used for instruction in selected school districts?
2. In what ways is performance assessment used for accountability in those districts?
3. How much and what types of support are provided by the districts for schools that use performance assessment?

Profile of districts

Telephone interviews were conducted with 26 consultants, school district officials, and staff members in state and federal education agencies to identify and collect information about districts that used performance assessment. Some individuals were interviewed more than one time. Three criteria were used to select three school districts for more intensive study:

1. The district had employed performance assessment for several years
2. The district used performance assessment in subject areas other than or in addition to writing
3. An individual in the district was knowledgeable of the performance assessment program and was willing to answer questions about it

The three districts chosen for study were Langley*, Colorado, near Denver; Hamilton, outside of Rochester, New York; and Davidson, Illinois, a suburb of Chicago. Mike Bloom, a representative of Langley (CO) Schools, visited Richmond on December 6, 1993, where he was interviewed by members of the MERC study team. Team

*The names of the districts and the names of the administrators who were interviewed have been changed to protect their anonymity.

members also interviewed Ms. Margaret Anderson, Assistant Superintendent in Hamilton (NY) Schools, by telephone on January 6, 1994, and Dr. Catherine Kelly, Associate Superintendent of Davidson, by the same means on March 2, 1994. Other information was obtained from documents provided by the districts and from articles in professional publications that described programs in the districts.

Langley. Langley is a suburban upper middle class district with almost 16,000 students, 91 percent of whom are white. Eighty-five percent of the district's graduates attend college. The district employs 1000 teachers in 22 schools (15 elementary, 4 middle, and 3 high) and has an annual budget of approximately \$75 million. The district spends about \$3800 per year per student. There is no line item for performance assessment in the district budget, and funds for that purpose were reallocated from other functions. Some federal funds (approximately \$30,000) were used for training purposes. Langley High School also raised money from private sources to pay teachers who helped develop the demonstration tasks.

Hamilton. Hamilton School District, located in a northern suburb of Rochester (NY), is a predominantly blue collar community with pockets of affluence. There are about 3000 students and 230 teachers in six schools, serving grades K-2, 3-6, 7-8, and 9-12. In recent years, a number of older teachers have retired and have been replaced by younger teachers. About 40% of high school teachers were hired within the past five years and 50% of middle school teachers were hired within the past three years. When Ms. Anderson took a position with Hamilton School District seven years ago, one of her first actions was to conduct a needs assessment as the first step in a six-year curriculum review process. Each year one curriculum area was reviewed for grades K-12. Over the six-year period, the entire curriculum was revamped.

Davidson. Davidson is a suburb of Chicago and has about 1000 students in nine high schools, six with traditional programs and three with alternative programs. Students in the district's schools attend elementary and middle school in one of three surrounding feeder districts. Schools in the district serve a number of racial and ethnic groups. The largest single ethnic group is Hispanic students, followed by Blacks. There are a large number of children from families that have immigrated to the area from the Indian state of Gujarat and some from Japan.

Claims for performance assessment. Why did these districts decide to introduce performance assessment in their schools? Several factors contributed to that decision. In Langley, a district-wide strategic plan identified four priorities: (1) to deal with the changing needs of students; (2) develop new means of assessing student progress; (3) restructure to prepare students for the 21st century; and (4) establish a system of school-centered decision making. Performance assessment was an effort to attain the first three of those objectives. The district's beliefs about the advantages of performance assessment were explained in a publication entitled "The instructional system in Langley Public Schools," published in Fall 1993. The following statement appeared in that report:

If we clearly define what all students should know and be able to do (that is, outcome standards) and develop assessments which measure student progress toward those goals, then we provide clear targets for students and school personnel. In addition, we are more accountable to parents and the community for student performance. We will also have better data to use in improving our instructional program.

In the same publication the district addressed some of the concerns voiced by parents. In the following statement, the district affirmed its intention to continue certain practices and avoid others:

Langley Public Schools will continue to give grades, include competition, teach content, avoid examining and judging students' personal belief systems, and strive to meet the needs of all students at the expense of none.

The district also committed itself to choosing instructional and assessment strategies that were effective in improving student performance.

In Hamilton, performance assessment was seen as a way to achieve important outcomes. Ms. Anderson said, "By addressing assessment, we felt we could address instruction." The intent was to encourage teachers to use more student-centered instructional methods, and performance assessment was chosen as the means to accomplish that result. She suggested that performance assessment had worked as intended and that teachers' views of assessment and of their role had changed. She said that teachers were spending more time planning for instruction and that the focus of their attention in the classroom had shifted to students.

Mike Bloom argued that one of the benefits of performance assessment was to make teachers' work easier. He suggested that teachers who used scoring rubrics with their students were able to reduce the amount of time they spent grading papers and were able to evaluate students' work more consistently.

Other justifications offered by the administrators interviewed in this study spoke to specific features of their programs. For example, Dr. Catherine Kelly from Davidson used the slogan, "It's not done until it's done right," to justify requiring students to revise their work several times, if necessary, until a satisfactory level of quality was obtained. This feature of some programs was criticized by parents, particularly the parents of gifted children who believed that it was unfair to give the same grade to students who

did a task correctly the first time and to those who required repeated trials to master it.

State policies were at least partly involved in the decision to adopt performance assessment in all three districts. The State of New York currently uses rubrics for evaluating students' writing on state-mandated tests and is planning to require the use of portfolios at all grade levels. The positive attitude exhibited by the State toward performance assessment was cited by Ms. Anderson in Hamilton as a factor that influenced the decision to implement it in that district.

In Illinois, all districts were required by the state to define student achievement goals that were aligned with state-approved instructional objectives in designated subjects. The state did not offer direction on the delivery of instruction, but the requirement to adopt achievement goals contributed to the decision to adopt performance assessment in Davidson.

Using Performance Assessment for Instruction

In both Langley and Davidson broad instructional goals were identified to provide focus and direction for efforts to improve instruction. Table 1 shows the list of approved goals adopted by the two districts. Langley referred to the instructional goals as "integrated learning outcomes." Davidson called them "general learning outcomes."

Insert Table 1 here

The process of revising the curriculum in Davidson began with a series of conferences and seminars examining the future for teachers, members of the boards of Davidson

Table 1

District-wide Instructional Goals for Two Districts

	Langley (CO)	Davidson (IL)
Thinking, problem-solving, decision-making, curiosity	X	X
Gather, process & communicate information	X	X
Cultural, scientific, technological literacy	X	X
Creative expression	X	X
Physical, emotional well-being	X	X
Mathematical concepts & processes	X	
Self-esteem, respect for others	X	
Analysis		X
Literacy skills (reading, writing, speaking, listening, numeracy)		X
Life planning		X
Environmental awareness		X
Social interaction		X
Civic responsibility		X

and the feeder districts, university faculty members and members of the business community. Several outside consultants were invited to visit the district to share their ideas with the participants.

Dr. Kelly reported that specific performance-based indicators were developed in response to a mandate from the State of Illinois that required school districts to identify student learning outcomes for six areas (mathematics, science, English/language arts, social studies, fine arts, and civic education). Davidson went beyond the state's requirements by including some learning outcomes that were not discipline-based, including creative expression, physical and emotional well-being, and life planning.

The indicators used in Davidson included paper-pencil measures, as well as other types of measures. They were developed by teacher teams and were available for use by all teachers in the district through a local area computer network. Standards of performance were established to permit teachers to assess the evidence indicating that a student had demonstrated mastery of a particular outcome.

Davidson specified three levels of achievement (called standards) for each of the 11 general learner outcomes. Level 1 (the lowest) involved foundation skills and knowledge; level 2 described activities leading to application of the skills and knowledge learned at level 1; and level 3 required students to integrate what they had learned in interdisciplinary, true-to-life contexts. Examples of two of the general outcomes from Davidson and the related standards are shown in Table 2.

Insert Table 2 here

From an instructional point of view, there are three advantages to using performance assessment: (1) Specific descriptions of task requirements help students to understand

Table 2**Two General Learner Outcomes and Related Standards,
Davidson**

Outcome: Students will demonstrate civic responsibility

Level 1 standards

Describe rights and responsibilities of a citizen
Describe ethical issues relevant to responsible citizenship
Explain responsibilities relevant to citizenship

Level 2 standards

Apply civic understanding and skills within the school community
Evaluate citizenship behaviors of self and others in various settings

Level 3 standards

Integrate civic understanding and skills by actively addressing
a social issue
Evaluate own effectiveness in addressing a social issue

Outcome: Students will demonstrate the ability to communicate (reading, writing, speaking, listening, and numeracy)

Level 1 standards

Pay attention to the communication
Clarify the communication
Organize ideas and structure communication
Express ideas
Identify own strengths and weaknesses as a communicator

Level 2 standards

Apply communication skills
Evaluate own development as a communicator

Level 3 standards

Demonstrate effectiveness as a communicator
Evaluate own style as a communicator

what they are being asked to do; (2) Detailed information on scoring helps clarify for students how their work will be evaluated, and (3) The fact that the task has inherent significance independently of its educational applications helps engage student interest and motivation.

Exemplars, anchors, and rubrics

To help students understand an assignment, the districts in this study collected samples of work and made copies for all students. These samples, called exemplars, consisted of work chosen by teachers to illustrate what was to be included in the finished product and to acquaint students with the level of quality expected. Ms. Anderson of Hamilton said exemplars "show students what excellence looks like." Students who received the exemplars were better informed about how to prepare an assignment that met a school's quality standards because they could study examples of high-quality work. In addition to the exemplars, teachers prepared rubrics and anchor papers for their own use.

Anchor papers for Hamilton Schools consisted of samples of student work that had been scored using the rubrics prepared for that purpose by teachers. Table 3 shows excerpts from rubrics developed by first and second grade teachers in Hamilton Schools to score students' writing. In addition to scoring students' writing for "planning" and "use of detail", the rubrics contained scoring guidelines for "language/vocabulary" and "mechanics".

Insert Table 3 here

Teachers in Hamilton prepared rubrics for their colleagues to use in scoring students' work. After they had prepared and tested the rubrics, they revised them. Rubrics for elementary grades were completed first, and those for the secondary grades followed.

Table 3
Grades 1 & 2 Writing Rubrics, Hamilton

Criterion A: Planning

4 (High)	3
You did an outstanding job planning your story	You did a good job planning your story
2	1 (Low)
Your plan is clear enough for your reader to understand your message	Your plan needs to be clearer in 1 or 2 places

* * *

Criterion B: Use of Details

4 (High)	3
You used a lot of excellent details	You used many good details
2	1 (Low)
You used some good details	You used few details, or the details you used need to be arranged differently

Ms. Anderson said, "You're shooting in the dark the first time you do it, but you learn what works and what doesn't." Rubrics were meant primarily to assist teachers to evaluate students' work, but they were also used to inform students about the standards. The anchor booklets and exemplars used in Hamilton were specific to a grade level, but the exemplars and anchor papers were in some cases used with more than one grade.

One of the essays written by a first grade student in Hamilton was entitled "The Motorcycle."

If my friend and I had a motorcycle, we would race to the top of the mountain. We would sail through the air. It would be fun. Sometimes we would crash. I do wish I really had a motorcycle.

The teacher wrote the following comments on this composition:

Strengths: Your piece was fun and interesting to read. You planned what you said very well. You used a lot of good details. You used some great words. You remembered to use capital letters and periods all of the time.

The rubric used to score writing for third grade students added a dimension that is not included in the rubric for Grades 1 and 2. It was "sentence variety." Table 4 shows the descriptors used to rate the dimension of "sentence variety."

Insert Table 4 here

A third grade student wrote the following composition, entitled "A visit to the farm:"

One day a little girl went to a farm. She told the owner she wanted to help with chores. He said, "OK, but it's a hard job." So Danielle the little girl helped. First she explored the

Table 4**Grade 3 Writing Rubric, Hamilton**

Criterion: Sentence Variety**4 (High)**

You used complete, complex sentences. You showed skillful use of sentence variety.

3

You used complete, complex sentences. You used a variety of sentences.

2

You used complete, simple sentences. You used some sentence variety.

1 (Low)

You attempted to use complete sentences, but you used little sentence variety.

house. Then she met everyone, even the animals. The pigs, sheep, geese, cows, horses, goats, llamas, ponys, and the offsprings. Finally she did chores, milked the cows, gave the animals a bath, groomed them, fed them, picked the weeds, and watered the garden. After she had to put away all the tools, and washed up, Danielle said, "What a hard job." "I know I do it all the time." Then they had pumpkin pie. At 8:00 she went home. The farmer said, "Come again." "I will."

The teacher's comments were:

Strengths: Your piece was fun and interesting to read. You planned what you said very well. You explained your ideas with details, examples, or reasons. You used a variety of sentences. You used good descriptive words. You remembered to use capital letters and correct punctuation.

Points to be considered: You could have organized your piece into more than one paragraph.

Ms. Anderson reported that rubrics had to be rewritten as the quality of students' output improved. The administrator believed that performance assessment deserved credit for the observed improvement in the quality of students' work.

Mathematics demonstration tasks

In Langley middle schools, students were expected to be able to "utilize mathematical skills, processes, and concepts in solving a wide range of problems within a variety of settings." Descriptions of three tasks students were required to complete in order to show achievement of that outcome are shown in Table 5.

Insert Table 5 here

Table 6 shows evaluation guidelines for Demonstration Task 1 (preparing a family budget).

Insert Table 6 here

Table 5

Middle School Mathematics Demonstration Tasks, Langley

Outcome 2:

Students utilize mathematical skills, processes, and concepts to solve a wide range of problems in a variety of settings.

Demonstration task 1:

Student will create a hypothetical family budget, make graphs, and perform conversions and other calculations with the budget figures

Demonstration task 2:

Given a list of raw materials and associated costs, design parameters, and building constraints, students will design and determine the cost of their dream home. The student will develop a floor plan, exterior perspective, bill of materials, and a graphic representation of all building costs. He/she will verbally present the project.

Demonstration task 3:

Imagine that you are at a meeting of the ice cream sales committee which must decide what kind(s) of ice cream and how much to sell at the next sale. Here is some information from the last ice cream sale:

Flavor	Bars ordered	Bars sold
Chocolate	375	284
Vanilla	125	119
Strawberry	250	203
Orange	100	74
Lemon	100	56
Cherry	50	50

Someone on the committee says, "Most of the people like chocolate, so let's sell only chocolate next time." Decide whether you agree or disagree with the statement. Justify your opinion. If you disagree, devise and justify your own plan for the next ice cream sale. You may write and draw your response. If you would like to know other information about the ice cream sale, write down your questions as part of your response to this problem.

Table 6**Scoring and standards for Mathematics Task 1, Langley**

A. Selection process

1. Student chooses occupation and verifies salary
2. Student decides family size
3. Student selects budget items and the total equals monthly income
4. Student verifies the cost of each budget item

B. Chart

1. Student creates a chart
2. Student lists dollar amount spent for each budget category
3. Student does accurate fraction calculations
4. Student does accurate decimal calculations
5. Student does accurate percent calculations
6. Student does accurate degree calculations
7. Student correctly totals all columns

C. Circle graph

1. Student draws the angles in the circle to match the degrees
2. Student labels the graph

D. Interview

1. Student explains all content items in Dimension A
 2. Student explains conversions in Dimension B 1-5
 3. Student explains construction of the circle graph
 4. Student demonstrates measurement of an angle
-

Language arts performance task

A letter to parents from teachers in the language arts department of Eastridge Junior High School in Hamilton explained the elements of a performance task required of students in grades 7 and 8. The letter reminded parents that while working on the assignment students would be required periodically to submit a checklist documenting their progress and that parents would be asked to review and sign these checklists. Students were required to make a presentation of their project to the class upon completion.

Students selected a project from a list of several possible options, as shown in Table 7. The title of one proposed project was "Learn all about someone you admire." For that assignment students were required to interview an adult, keep a daily journal of conversations with that person, and write an essay explaining why they admired the individual. Other options included "Immerse yourself in another culture," "Learn about a poet and his works," "Write a play," "Get involved with a local, national or international issue" and "Create and diagram an invention."

Insert Table 7 here

A checklist for this assignment provided a detailed sequence of steps for completing the project. Some of the items on the checklist for this assignment were:

- Chose an adult who has agreed to participate
- Have planned when you can talk each day
- Have purchased or made a journal
- Started writing the journal
- Made rough draft of 20 thought-provoking questions
- Selected interview styles (in class, video, or role play)
- Set up time, date and place for interview

Table 7**Topics for Grades 7 & 8 Language Arts
Performance Assessment Projects, Hamilton**

- A. Learn all about someone you admire
 - B. Immerse yourself in another culture
 - C. Learn about a poet and his works
 - D. Write a play
 - E. Get involved with a local, national or international issue
 - F. Create and diagram an invention and write a manual
 - G. Create a short story for a younger person in an illustrated bound book
 - H. Develop your own school or community project or service
-

- Wrote prewriting for essay
- Wrote rough draft for essay
- Wrote published copy for essay
- Practiced reading special essay out loud
- Set date to read essay to class

For this assignment students were required to complete two booklets, one containing the rough draft and the second a finished copy of the assignment. A checklist explained in detail the elements to be included in each booklet. Requirements included a cover sheet, table of contents, prewriting sheet for each segment of the assignment, an introduction for the oral presentation, a conclusion, bibliography and completed checklist.

Using Performance Assessment for Accountability

Accountability was emphasized in the application of performance assessment in both Langley and Hamilton. The latter adopted an assessment policy which identified the purposes for performance assessment and communicated to both parents and teachers what the district was attempting to accomplish through assessment. Langley required schools individually to develop plans to achieve the district-wide instructional goals.

Policy thrust

The Hamilton School Board adopted a policy on assessment. All teachers in the district received a copy of the policy and were invited to propose changes. "Until you have a policy, there's no accountability mechanism," Ms. Anderson explained. The purposes for assessment identified in the policy included providing information on student progress to teachers and students, establishing instructional goals, monitoring student growth, adjusting instructional strategies, communicating student achievement to parents and others, and evaluating programs, most of which are outcomes associated with accountability.

Administrative regulations accompanying the assessment policy also identified recommended performance assessment practices. They recommended that teachers inform students about performance criteria in advance of assessment, show students examples of exemplary work which they could use as models for their own work, and provide "multiple opportunities" for students to improve the quality of their work. The regulations also recommended that instructional strategies be adjusted and that district-wide student achievement results be reported to the public. The regulations suggested the adoption of new roles for students and teachers (student as worker and teacher as facilitator).

The policy proposed several strategies for evaluating student achievement. Among these were using "real world" problems or situations for assessing students' ability to analyze, synthesize and evaluate information; using portfolios; allowing students to use a variety of media to demonstrate their cognitive capabilities; developing open-ended problems with multiple solution paths; using a variety of formats, including standardized, state, multiple choice, essay and teacher-made tests, to assess student work; designing tasks that require student research; designing tasks to be completed over a period of several days or weeks; and requiring final assessments that included demonstration of cumulative understanding rather than mastery of discrete facts.

Graduation requirements

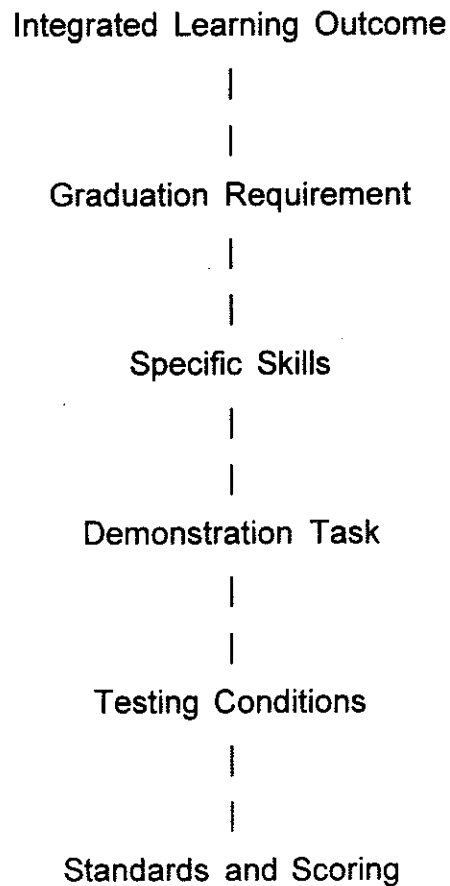
High schools in Langley developed plans for revising the curriculum independently of one another. Langley High School was the first school to put its plan into effect. LHS identified 19 demonstrations that, beginning with the class of 1995, students would be required to perform successfully in order to graduate. The school published a course list that showed which classes covered the knowledge and skills needed for each of the required demonstration tasks. The 19 requirements for graduation from Langley High School are shown in Table 8.

Insert Table 8 here

Table 8**Graduation Requirements
for Langley High School**

1. **Speaks, writes articulately and effectively**
 2. **Reads and listens actively**
 3. **Uses another language**
 4. **Actively contributes to service organizations**
 5. **Understands economics as it applies to everyday living**
 6. **Uses research and problem-solving to qualify and quantify information, to make distinctions, and to make decisions**
 7. **Understands the importance of ethical conduct**
 8. **Interacts well and works cooperatively with others**
 9. **Reads and evaluates literature**
 10. **Applies mathematical principles and operations to solve a range of problems**
 11. **Evaluates his/her own goals and demonstrates self discipline**
 12. **Implements a plan for physical and mental health**
 13. **Applies skills and scientific concepts to explain his/her world, find solutions for its problems, and suggest improvements in the quality of life**
 14. **Uses knowledge of the past to explain the present and anticipate the future**
 15. **Applies physical and cultural geography to understanding of society**
 16. **Understands the structures, operations, and relationships of governments in the U.S.**
 17. **Demonstrates practical knowledge of tools and technical systems**
 18. **Demonstrates awareness of how environment is affected by technology**
 19. **Participates in and is aesthetically aware of the visual and performing arts**
-

For each demonstration task, Langley High identified specific skills for the task and described testing conditions and standards for scoring. The assessment hierarchy for LHS was:



An example of a graduation requirement at Langley High School was: "The LHS graduate speaks and writes articulately and effectively."

The specific skills for this task were:

1. Adjusts style and tone to purpose and audience
2. Supports statements using well-founded facts, theories and opinions; logically reaches conclusions based on sufficient evidence
3. Clearly states points effectively and organizes ideas
4. Uses grammatically acceptable English

A demonstration task for this requirement was to write a letter to a public official regarding that person's position on a current issue. The student's position on the issue had to be different from the official's position. The student was given a choice of several issues and was furnished documentation of an official's position on the issue of his/her choice, along with background information.

The testing conditions specified that the work was to be carried out under the supervision of a teacher or proctor and had to be completed in two 45 minute blocks. No peer editing was allowed, only self-editing. The student had access to a dictionary, thesaurus, and computer. Background materials were available one week in advance of the assessment session.

The scoring standard for a rating of "Excellent" on this task included these elements:

1. Letter is persuasive; writer clearly states opinion, uses facts to support the opinion, and explains why the facts support the opinion
2. Presents a two sided argument, explaining why the facts support the writer's opinion and refute the official's position
3. Writer uses psychological motivators
4. Wording and attitude are appropriately formal for a letter to a public official
5. Letter is essentially free of grammatical, punctuation and spelling errors
6. Vocabulary is interesting, and the sentence structure is varied.

Descriptions of scoring standards at two other levels (proficient and unacceptable) were also available to teachers.

Arroyo High School in Langley adopted performance assessment tasks for use in classes but did not require students to demonstrate proficiency on them in order to graduate. Homestead High School, also in Langley, announced that students would

be responsible for achieving specified performance outcomes, even though the tasks that were to be used to measure attainment of those outcomes had not yet been developed.

A steering committee consisting of teachers and administrators from Langley middle schools but with no parent representatives was established to decide what knowledge students would be expected to know upon completion of middle school. The group identified nine middle level learner outcomes that generally paralleled the integrated learner outcomes, with some changes. One new outcome was added, and two others were rewritten. The new outcome was to "demonstrate understanding and aesthetic awareness of the visual and/or performing arts through active participation." The revised outcomes were to "apply the scientific process to inquire and learn about self and the environment," and to "perform as well-rounded, responsible, and productive persons."

The elementary schools in Langley followed a procedure similar to that used by the middle schools, using a task force composed of representatives from all elementary schools in the district, including parents. The task force identified eight outcomes that students were expected to master by the end of fifth grade. The elementary school task force added an item emphasizing knowledge and experience in the arts and a second item stressing use of study skills.

Beginning with the class of 1995, all students in Davidson will be required to demonstrate mastery of the required outcomes in order to graduate. There are two parts to this requirement. Students have to master the 11 general learner outcomes as well as the essential program outcomes. Students are expected to demonstrate the 11 general learner outcomes at least three times during their high school careers in at least two content areas. This requirement is meant to ensure that the student is able to demonstrate the knowledge or skill and to ensure that the performance is not simply the result of luck or chance. All students receive a matrix showing in which courses

each of the learner outcomes is lodged. Most students in the 1993-94 junior class (the first required to demonstrate knowledge of the outcomes) had already demonstrated competence in all 11 learner outcomes.

Program level outcomes are course-specific topics and content. Students demonstrated mastery of the program outcomes by successfully completing one of several courses in which the outcome was embedded. For example, a mathematics program outcome might be learned in an algebra class or in a technology class, and a communications program outcome might be learned as part of either the English or social studies curriculum. The content outline for each course offered in district schools contained a list of essential learning outcomes students were expected to learn, and students were accountable for mastering them.

Allowing multiple trials

The emphasis on accountability in Davidson was summed up by Dr. Kelly in the phrase, "It's not done until it's right." The statement conveyed two messages to students--that quality work was expected of all and that individuals could continue to work on an assignment until a satisfactory outcome was achieved. Some parents objected to offering students whose work was not correct the first time an opportunity to do it over. They felt that the policy was unfair to students who were conscientious about doing their classwork correctly the first time and believed that it encouraged students to adopt sloppy work habits.

Davidson was strongly committed to helping students successfully acquire the knowledge and skills needed to graduate. The district established resource centers in the schools to assist students. Teachers' contracts were rewritten to relieve them of noninstructional duties such as hall patrol or bus supervision. Aides were assigned those duties so that teachers would be available in the resource centers to work with students on mastering learning outcomes. School libraries remained open four evenings a week, staffed by volunteers, in order to provide access to study materials

and a quiet place to work. Summer school programs were offered for students who needed to work on particular learning outcomes.

The district developed an instructional model that included these statements:

- Course outcomes established by consensus of the district's teachers will be used as the basis for decisions regarding what will be taught

- Teachers will design instructional strategies, including multiple learning opportunities and frequent feedback ,to maximize student achievement

- Teachers will reference their assessments of student achievement to course outcomes

Report cards

All three districts continued to use traditional report cards, although the format was not well-suited to reporting performance assessment results. Teachers had to translate students' scores on performance assessment tasks to traditional numerical or letter grades, and some experienced difficulty in doing that. In Hamilton, elementary teachers had relatively few problems adapting their grading practices, but secondary teachers were less comfortable. Ms. Anderson reported that some teachers wanted to translate ratings based on scoring rubrics to a letter grade equivalent. For example, a score of 4 would equal an A.

Results of performance assessment

In two districts administrators claimed that performance assessment had contributed to improved student achievement. In Hamilton, the Assistant Superintendent pointed out that students' work had improved so much that rubrics had to be rewritten to reflect

the improved quality of their performance. She also claimed that students' attitudes toward school had improved and that the number of students receiving Regents diplomas had doubled, although the latter improvement was not attributed solely to the introduction of performance assessment.

In Davidson, Dr. Kelly listed several indicators that showed that the new curriculum and revised approach to testing had resulted in increased student achievement. She said that the number of National Merit finalists from the district had tripled since the program went into effect, that mathematics and verbal SAT scores had risen, that the number of students taking advanced placement classes in the 1993-94 school year was up by 200 over the figure for the preceding school year, and that the number of students scoring 3 or higher on AP tests has increased by 40 percent. She attributed these results in part to the fact that the curriculum had been aligned with tests used to measure student achievement.

Implementation of Performance Assessment

Research Question 3 examined the process of implementation of performance assessment and the amount and types of support for provided by district offices. Support from district offices was provided by means of staff development activities, policy statements, public information sharing sessions, and changes in district testing policy.

Centralization vs. decentralization

The three districts varied in the extent to which implementation of performance assessment was centralized as opposed to decentralized. In Langley, a site-centered plan was followed and schools were allowed to proceed at their own pace in introducing performance assessment. However, in Hamilton and Davidson more centralized approaches were taken. In Davidson the district office designed a curriculum review plan that was carried out by teams of teachers from the schools.

As a result of the decentralized approach used in Langley, schools introduced performance assessment at different times, and the accountability requirements differed. Bloom indicated that experience showed that there were both advantages and disadvantages to decentralized control of innovations. "We went too heavily in the direction of allowing people to make their own mistakes," he said. He stated that he now strongly advises districts to provide for major quality control from outside the school and added that Langley Schools were beginning to closely monitor individual school planning.

The strategic plan adopted by the Langley district provided a framework for the schools to follow. The plan identified seven integrated learning outcomes, and each school was responsible for developing strategies to help students achieve those outcomes. All of the work on performance assessment in Langley was carried out under the umbrella of the strategic plan.

Community involvement

The districts differed in the extent to which parents and members of the general public were involved in early planning for performance assessment. In Davidson the process started with a series of conferences and seminars for teachers, members of school boards for Davidson and near-by communities, university faculty members, and members of the business community. Several outside consultants were employed to make presentations to the participants in these conferences.

Hamilton made an active effort to keep parents informed about changes in instruction and assessment through committees and parent-teacher conferences and with presentations to community and parent-teacher groups. The schools in that district hold an annual meeting for parents at which teachers explain the curriculum and student evaluation processes. The teachers share with parents the portfolios assembled by children in language arts (grades K-12) and science (grades K-6). Teachers also explain the use of rubrics and distribute printed information about the process by which

students' work is evaluated. Parents who attend these meetings are even given an opportunity to participate in evaluating their children's portfolios. Exemplar books are prepared each year containing samples of outstanding work, and families of the children receive one of the books.

Parents and community members in Davidson were consulted about proposed changes in curriculum and assessment, but the initial reaction of the general public was that the schools were doing a good job and no changes were needed. Some parents felt that since a high percentage of graduates attended college, the schools were doing a good job.

Dr. Kelly, Associate Superintendent of Davidson, took the lead in arguing for the need to reform the curriculum, pointing out that children today come to school with different needs and face a different future than the children of even a few years ago. As a result of involving parents and community members, the schools received a good deal of feedback about the proposed changes. Dr. Kelly explained, "It wasn't a matter of people reacting to drafts. They had a meaningful role."

When community opposition to performance assessment materialized, district offices helped clarify issues and responded to critics. Langley made relatively little effort to involve parents and community members in its initial planning. However, after his experience with community opposition in Langley, Mike Bloom recommended that districts anticipating adopting performance assessment "communicate aggressively" with the public in order to allay people's fears about the proposed reforms. He also advised educators not to assume that critics will be content simply serving as a member of an advisory committee. He said that people want to have an active voice in decisions about school programs.

An early challenge to the proposed revisions in Davidson came from a group called Friends of the Gifted and Talented. Members of this group were concerned that gifted

students might be denied the recognition they deserved for the work they were doing. For example, the group questioned whether a student who took several trials to master new material should receive the same grade as one who learned it in less time. Dr. Kelly's response to these questions was to review the purpose for evaluating students. "Are we trying to sort and select students," she asked, "or is our mission teaching for learning?"

Working with teachers

In all three districts in this study, teachers' knowledge of and attitudes about performance assessment influenced their acceptance, or lack of acceptance, of the innovation. As is true of most new practices, the introduction of performance assessment aroused concerns among the teachers who were charged with implementing it. Davidson teachers were initially fearful of possible loss of autonomy because they were unsure what they were expected to do collaboratively and what was to be done independently.

Later the teachers expressed concern about whether students would be able to master the general learning outcomes required for graduation. When the new program was being planned, many outcomes were included among graduation requirements in order to gain support from teachers. After a time, teachers realized that the expectations they had established for students were too stringent, and some requirements were then softened. These issues became easier to work through as teachers became more trusting and realized that their subjects would not be eliminated.

Administrators reported that some teachers initially opposed performance assessment, and although the opposition was not widespread, it was apparently harmful to the program, since some teachers expressed their concerns openly to parents. The teachers told parents that they did not know what was going on or that there was no time to teach because so much time was required for other tasks. These statements, in the view of administrators, reinforced parents' concerns about performance

assessment. The administrators reported that elementary teachers were more supportive of the program than individuals who taught in the high schools. They attributed teachers' opposition to a lack of information about performance assessment.

It was clear from the administrators' comments that some teachers experienced difficulty in incorporating performance assessment into their teaching. One administrator (Davidson) said that "teachers didn't know how to fit performance assessment with instruction; they think it's an add-on. When you introduce performance assessment, instruction has to change." Mike Bloom, from Langley, reported that teachers thought of curriculum, instruction and assessment as being related in a linear fashion and said that he encouraged teachers to think of them as circular, with each element influencing the other two.

Bloom also explained that ensuring an adequate level of quality in demonstration tasks was a problem. Teacher teams were given a learning outcome and a descriptive paragraph about the outcome and were asked to develop a demonstration task to measure mastery of the outcome. Doing that required taking what was implicit and informal and making it explicit and formal. He reported that the quality of teacher-prepared tasks ranged from "excellent" to "pretty good" to "not usable". Major revisions were required for most of the tasks prepared by teachers, which increased developmental costs. He estimated that the cost of preparing a high-quality demonstration task ranged from \$900 to \$1200 per task.

Bloom suggested that developers should ask themselves, "What does the student have to do in order to achieve the desired outcome?" He said that his experience showed most teachers are not accustomed to the sequential type of thinking and clarity of expression that preparing such tasks requires. He pointed out that teachers are experts on content but that few of them are experts in tests and measurement.

In Langley, district staff members have begun working with teacher teams preparing assessment tasks in order to help them refocus and stay on target. Their experience has shown that a small team of teachers working with a knowledgeable leader is the best arrangement for producing usable assessment tasks.

Staff development. After performance assessment was introduced into Langley schools, it became apparent that teachers were not well informed about the topic and that some did not support it. At that point the district began offering inservice workshops to show teachers how to incorporate principles of assessment design into their instructional planning. The workshops were presented by a district office staff member. Teachers were encouraged to provide students with samples of outstanding work and were told that using scoring rubrics for daily classwork assignments would reduce the amount of time they spent grading students' papers and help them to evaluate students' work more consistently.

Hamilton introduced the 4MAT learning styles program developed by Bernice McCarthy and provided training in its use for teachers. Between 55 and 60 percent of teachers had received training in use of the 4MAT program. Performance assessment was added to form the evaluation component of the program.

Local area network. Davidson encouraged teachers to share with one another the performance-based measures they had designed. To facilitate the process of sharing, the district installed a local area network and provided access to allow teachers to share performance measures of the general learner outcomes with colleagues. The measures included paper-pencil items as well as other types.

Reducing testing time

Hamilton also sought to facilitate the introduction of performance assessment by reducing the amount of time devoted to standardized testing. Whereas standardized tests had previously been administered at all grade levels, the district moved to limit

their use to grades 3 through 6. The move was supported by teachers and administrators, who believed that the information obtained was not useful enough to justify allocating 20 school days for testing.

Assessment policy

The Hamilton board adopted an assessment policy in which the purposes for performance assessment were identified, with implications for both instruction and accountability. The assessment policy adopted by the board was intended to communicate to both parents and teachers what the district sought to accomplish through assessment. All teachers received a copy of the policy and were invited to propose changes. Ms. Anderson said, "Until you have a policy, there's no accountability mechanism."

Purposes for assessment identified in the policy included providing information on student progress to teachers and students, establishing instructional goals, monitoring student growth, adjusting instructional strategies, communicating student achievement to parents and others, and evaluating programs.

Administrative regulations for the assessment policy in Hamilton also identified recommended performance assessment practices. Among the recommendations were that students be made aware of performance criteria in advance of assessment, that students be shown examples of exemplary work which they could use as models for their own work, that students have "multiple opportunities" to improve the quality of their work, and that new roles for students and teachers (student as worker and teacher as facilitator) be established.

General Conclusions

Several conclusions about the use of performance assessment for instructional purposes and accountability can be drawn from the data gathered from interviews and other sources.

1. Our view of accountability is shifting from requiring completion of specified courses and accumulating credits to demonstrating proficiency on authentic tasks. The districts studied in this project proceeded slowly, retaining conventional accountability procedures such as report cards and course requirements while adding the new requirements. This overlap in accountability produced some confusion among students, parents, and teachers.

2. Performance assessment projects require that teachers be very specific about what is expected of students. Teachers need to prepare detailed explanations of requirements in writing, telling students what products are to be turned in, when they are due, and how the work will be evaluated.

3. Performance assessment also requires teachers to agree on standards for evaluating students' work. The experience of the districts involved in this study suggests that these standards will fluctuate during the early years of the program, as students respond to the higher expectations that accompany the introduction of standards and teachers experiment to establish expectations that are reasonable but challenging.

4. Checklists for students are recommended for assignments that take several weeks or months to complete, and these should be reviewed periodically by parents and the teacher to monitor students' progress. The checklist helps students understand how to proceed to complete an assignment and ensures that they do not postpone beginning work.

5. The districts found that a great deal of staff development work with teachers was needed in order to convert smoothly to performance assessment. Teachers understood less about performance assessment than district administrators had assumed.

6. Teacher concern about performance assessment was attributed by administrators to a lack of information, but other explanations could also account for it. For example, some teachers were uncomfortable with a program in which students were allowed multiple opportunities to complete assignments and in which, as a result, many students earned As.

7. Rubrics, anchor papers, exemplars, and checklists were endorsed by the districts as effective ways of informing students of the schools' expectations, helping students organize their efforts and guiding teachers in scoring students' work.

8. Some students need assistance to achieve the higher standards that accompany the introduction of performance assessment. Davidson's plan to reassign teachers from hall duty and bus duty to assist students to improve their work is a model that other districts may want to follow.

9. High stakes assessments--for example, tests that students must pass in order to receive a high school diploma--must be technically sound and must have credibility with parents and the public. One way of achieving credibility is to involve parents and community members in deciding what students should know upon graduating.

10. Parents of children who are successful in school often do not see the need for performance assessment and must be persuaded of its value.

11. Preparing demonstration tasks is expensive and time-consuming. If teachers are expected to develop these measures, they will need training and assistance.

Getting started

Instructional issues

Teacher support is important for the success of performance assessment and other innovations in schools. Support is obtained by allowing teachers a voice in planning new programs and by trying to avoid adding to teachers' workloads. Computer programs were developed in two districts to assist teachers in implementing performance assessment. Teacher support for performance assessment is likely to be more enthusiastic if the total amount of time devoted to testing is maintained or reduced.

Performance assessment required a considerable investment of time by teachers. Langley Schools obtained external funds to pay teachers who worked during the summer to develop demonstration tasks.

Mike Bloom stressed that districts that expect students to master specified knowledge and skills should take steps to ensure that teachers cover the requisite material and that students are notified in advance in which classes the required material will be taught. Students also need to be informed about ways those who fail to learn the material the first time can make it up.

All three districts provided staff development opportunities for teachers. Davidson made time for staff development by delaying the start of classes one and a half hours every Thursday. In Langley, plans for staff development were drawn up after it was discovered that some teachers had very limited understanding of performance assessment.

Accountability issues

Administrators in Langley found that some parents were upset by language they did not understand and which communicated to them something other than the meanings educators attached to the terms. For example, Langley parents were alarmed when district personnel identified "problem solving" as a learning objective but failed specifically to mention addition, subtraction, multiplication and division. Mike Bloom advised districts to choose language that communicates clearly to parents what their children will learn and not to assume that words and phrases regularly used by educators carry the same meanings for parents as they do for professionals. He cautioned that phrases such as "the whole child," which allude to learning outcomes having to do with children's social and emotional development, alarm parents who believe the schools intrude on parents' prerogatives when they incorporate such content into the school curriculum.

Opposition to performance assessment most often occurred among parents of students who were doing well in school, including gifted students. Many of these parents saw no real need for change or were fearful that their children would not receive the credit due them if other students were allowed extra time to complete assignments.

Implementation issues

Administrators in the three districts emphasized the importance of informing and involving teachers and parents from the beginning when performance assessment is introduced into schools. An administrator from Langley recommended "communicating aggressively" with the public and using two-way communication techniques to inform teachers, parents, community representatives, and board members about proposed reforms. He said that people desired to have an active voice in decisions about school programs and were no longer satisfied with serving on a committee.

In this case, the advice from the Langley administrator had a "do as I say and not as I do" quality, because that district had made little effort to involve parents or community

members in initial development efforts. The oversight was costly, for voters in a December election rejected board members who supported performance assessment and replaced them with candidates who opposed the innovation. The new board subsequently eliminated performance assessment requirements at Langley High School.

Change processes. Those who attempt to bring about change in schools typically approach the task from one of three perspectives, based on their beliefs about organizational change. The three approaches are the rational-scientific, the political, and the cultural. The rational-scientific view considers change as organizational members' response to purposeful attempts to introduce new and innovative organizational structures, practices or programs. The political perspective envisions change as resulting from a top-down strategy that uses policy and administrative directives as the driving force behind organizational change. The third perspective is known as the cultural or bottom-up approach. In it, change is seen as the adoption of new and different values by members of an organization (Sashkin & Egermeier, 1993).

The rational-scientific perspective grows out of the belief that when new and better methods are shown to be superior to those currently practiced, people abandon less effective methods in favor of newer and more productive procedures. The decision to adopt a new practice is believed to be made by individual practitioners after careful consideration of evidence related to the effectiveness of the new method and its potential costs and benefits.

The political perspective assumes that members of an organization generally seek to comply with directives from individuals in positions of authority in the organization or the larger environment and to align their efforts with identified goals and missions of the organization. Individual practitioners are viewed as responsive to pressures from within and outside of organization.

The cultural approach suggests that what people believe about their work and the values they hold shape and direct their activities and that change occurs as old values and beliefs are discarded and replaced by different ones.

Change efforts may involve a variety of strategies, including staff development, organization development, mentoring, coaching, and restructuring. Although no strategy is exclusive to any single perspective, some strategies are more compatible with certain approaches than others. For example, organization development is the preferred approach for examining and seeking to transform values, but it is of minimal value when the mechanism for change is administrative policies and directives. Staff development is used as a strategy with all three perspectives, but there are differences in the design and purpose of the training sessions used with each.

The districts studied as part of this research tended to favor the political perspective over the rational-scientific and cultural approaches to organizational change. This was demonstrated by the use of strategic planning to guide instructional reform in Langley, by the identification of district-wide instructional goals in Langley and Davidson, and by the adoption of an assessment policy by the Hamilton school board. In addition, Hamilton went through a lengthy process of reviewing and revising the curriculum before performance assessment was adopted.

Successful change will occur, in the view of advocates of rational-scientific theory, when teachers are well informed about the merits of a new technology, in this case performance assessment. However, those who subscribe to the political approach believe that change comes about in response to clear and well-supported directives from authorities. Adherents of the value perspective are persuaded that changes in the values held by teachers must precede changes in teaching practices.

Experience in the districts studied showed that teachers who were well-informed were more likely to support a new idea. The success of an innovation, then, is dependent

not only on its technical quality but also on how well teachers understand it and whether they believe they can use it.

Reexamining values. Attempts to change school practices can, and often do, compel a re-examination of values. For example, when performance assessment was introduced in one of the districts in this study, the number of students earning As increased, but not all teachers were comfortable awarding so many As. Those teachers advocated adjusting standards of performance in order to bring the number of As back into line with the prevailing practice at the time performance assessment was introduced. This was one of several issues that had to do with value questions that arose from efforts to implement performance assessment.

Performance assessment helped to clarify for both students and teachers how students' efforts would be evaluated, but it did nothing to clarify the quality of work teachers should expect of students. This was another value question that had to be dealt with soon after the introduction of performance assessment in the schools. The issue was whether all students should be encouraged to strive for the highest rating or if allowances should be made for differences in student ability.

Another question involving a value issue was whether special education students should be required to demonstrate mastery of performance assessment tasks. The decision was made that these students should be assigned tasks at an appropriate level of difficulty. Thus, a student who was functioning at third grade level would be assigned a task appropriate for that grade level rather than one at a level that would normally be assigned to students of the same age.

Difficult questions about how to translate performance assessment scores into grades for report cards also had to be resolved. Some teachers were inclined to equate letter grades with numerical ratings, so that, for example, a rating of 4 on a performance assessment task would translate to an A, a rating of 3 to a B, and so on. One

administrator felt that such a scheme was simplistic and that in converting ratings to grades teachers needed to take into account other factors, including the expectations that were held for students and the nature of the assessment tasks on which students were being graded.

Grading was further complicated by differences in beliefs about how ability and effort should be weighed. Parents of gifted children, in particular, believed that students who completed a project at a high level of quality on the first try deserved a higher grade than a student who required several trials to attain a comparable level of quality on the task.

In general, decisions about grades include considerations having to do with the quality of a student's work, the amount of time the student takes to complete an assignment, the amount of effort required, and the level of difficulty of the project. These factors are not necessarily accorded equal weight, and teachers differ in the relative importance they assign to each. Furthermore, the factors are not always independent of one another. For example, time may compensate for effort, and difficulty, time and effort tend to rise and fall together. One other factor that influences teachers' decisions about grades, but which is often not acknowledged, is teachers' expectations for individual students.

After teaching a few years, most teachers acquire clear ideas about what students of a given age are capable of doing. These become generalized expectations for students. In addition, teachers hold expectations for individual students that may vary slightly from the generalized expectations they hold for students of a particular age. A student's failure to perform to the level of a teacher's expectations can affect the child's grade. For example, a student whose teacher thinks he/she is capable of producing work at a high level of quality, but who turns in a project that is below that level, probably receives a lower grade than one who produces work more in keeping with the individualized expectations the teacher holds.

Teachers rarely discuss their expectations for students, but performance assessment forces them to consider the issue explicitly. Some advocates of performance assessment argue that quality of performance should be judged on the basis of a single set of standards that is the same for children of all ages. Those who disagree with this position believe that to adopt a single standard in effect denies young children the chance of earning the highest grade. They hold this may be harmful to the child's self-esteem.

References

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APPENDIX

**Questions for Mike Bloom Interview
December 6, 1993**

1. Please give us some background information on the Langley Schools.
 - >>>How many schools in the district?
 - >>>What is the enrollment?
 - >>>What is the socio-economic level of the community?
 - >>>What is the average achievement level of students?
 - >>>Are students culturally and racially similar or diverse?
 - >>>What types of teachers do you have? Ages? Level of education?

2. What type of assessment procedures were in use in Langley Schools before you introduced performance assessment?
 - >>>Are any of those procedures still being used? Why or why not?
 - >>>Why was the decision made to adopt performance assessment in preference to other assessment methods?

3. When did Langley begin the process of introducing performance assessment in the schools? Has the process of changing to new assessment procedures been completed, or is it still underway?

4. Can you describe for us the process by which the Langley Schools moved into performance assessment?
 - >>>Did the board target performance assessment as a priority?
 - >>>Was performance assessment included in the budget? If so, what amount was budgeted?
 - >>>At what grade levels was it first introduced?
 - >>>Were old assessment procedures discontinued immediately, or were both procedures in effect during the transitional period?
 - >>>Are all schools required to use performance assessment, or is it optional?
 - >>>Did you involve parents in the process of implementing performance assessment? If so, how was that done?

5. Was the curriculum revised at the time performance assessment was introduced? If so, describe the revisions.

6. Were classes or inservice workshops offered for teachers and administrators to prepare them to introduce performance assessment? What was the nature and scope of the training provided?

7. Did schools that adopted performance assessment receive additional staff resources?
8. What process was followed to develop performance assessment instruments?
 - >>>Was this done by staff members in the district, or did you hire a consulting firm to do the job?
 - >>>How were the instruments validated?
 - >>>Have the instruments been revised? If so, how was that done?
9. Is performance assessment used for accountability purposes in Langley?
 - >>>How do you report performance assessment results to parents?
 - >>>How are results reported to teachers and administrators?
 - >>>What use is made of the information?
 - >>>Do board members accept performance assessment results for accountability purposes?
10. What is your feeling at this point about performance assessment?
 - >>>What do teachers like or dislike about it?
 - >>>Has it solved problems that were encountered under the old assessment procedures?
 - >>>Have any new problems arisen?
 - >>>How has performance assessment been received by parents?
 - >>>How have you handled any controversy that has arisen?
11. What was the most difficult part of the transition to a new type of assessment?
 - >>>Is there anything you would do differently if you were to do it over?
12. What advice or suggestions would you give a school district that is thinking about introducing performance assessment?

**Questions for Margaret Anderson
January 6, 1994**

1. Please give us some background information on your school district.
 - >>>How many schools?
 - >>>What is the enrollment?
 - >>>What is the socio-economic level of the community?
 - >>>What is the average achievement level of students?
 - >>>Are students culturally and racially similar or diverse?
 - >>>What types of teachers do you have? Ages? Level of education?

2. I believe you told Jeanne Schlesinger that the district designed some of the assessment instruments used in your schools. Please tell us more about that.
 - >>>What subjects or skills do you assess?
 - >>>What grade levels are involved?
 - >>>How would you describe the instruments you use?
 - >>>Who designed the tests?
 - >>>Was any of the developmental work done locally?
 - >>>Were reliability and validity established for the tests?
 - >>>What advice would you give a school district that wanted to design its own assessment instruments?

3. How are students' responses scored?
 - >>>Did you develop scoring rubrics?
 - >>>If the tests are scored by teachers, how do you maintain scoring reliability?

4. How have teachers responded to these new measures?
 - >>>How do they use the results from the tests in their teaching?
 - >>>What do they like most about the new types of tests?
 - >>>What do they like least?

5. How have parents responded to these new measures?
 - >>>Do you inform parents about their children's performance on these tests?
 - >>>How are scores reported?
 - >>>Do parents understand what the results mean?
 - >>>What do they like most about the new types of tests?
 - >>>What do they like least?

6. When did your school district begin the process of introducing performance assessment in the schools?
 - >>>Has the process of changing to new assessment procedures been completed, or is it still underway?
7. What was the board's role in moving to performance assessment?
 - >>>Did the board target performance assessment as a priority?
 - >>>Was performance assessment included in the budget? If so, what amount was budgeted?
 - >>>Were old assessment procedures discontinued immediately, or were both procedures in effect during the transitional period?
 - >>>Are all schools required to use performance assessment, or is it optional?
 - >>>Did you involve parents in the process of implementing performance assessment? If so, how was that done?
8. Was the curriculum revised at the time performance assessment was introduced? If so, describe the revisions.
9. Were classes or inservice workshops offered for teachers and administrators to prepare them to introduce performance assessment?
 - >>>What was the nature and scope of the training provided?
10. Did schools that adopted the new assessment procedures receive additional resources of any kind?
11. What process was followed to develop performance assessment instruments?
 - >>>Was this done by staff members in the district, or did you hire consultants?
 - >>>Have the instruments been revised? If so, why was it considered to be necessary?
 - >>>How was it done?
 - >>>Are the instruments available for sale to other districts?
12. Are the results of the instruments used for accountability purposes in your district?
 - >>>How do you report the results to parents?
 - >>>How are results reported to teachers and administrators?
 - >>>What uses are made of the information?
 - >>>Do board members accept performance assessment results for accountability purposes?

13. What is your feeling at this point about performance assessment?

>>>Has it solved problems that were encountered with the previous assessment procedures?

>>>Have any new problems arisen?

>>>How have you handled any controversy that has arisen?

14. What was the most difficult part of the transition to a new type of assessment?

>>>Is there anything you would do differently if you were to do it over?

**Questions for Dr. Catherine Kelly
March 2, 1994**

1. Please give us some background information on your school district.

Number of schools
Enrollment
Socio-economic level
Cultural and ethnic diversity
Teaching force--ages
Teaching force--level of education
2. In an article you wrote for a professional journal, you identified 11 general learner outcomes that you described as "essential learnings [for] all students." Can you describe the process by which those outcomes were identified?
3. Are students expected to master these outcomes in order to graduate? If so, at what level (Level 1, 2 or 3)?
4. In your article you state that the district maintains a bank of teacher-developed or teacher-selected items which are referenced to course outcomes.

Do teachers use these items to determine whether students have mastered the learner outcomes?
Is there a common standard by which student mastery is evaluated, or does each teacher set his/her own?
5. What happens if a student fails to master one or more of the outcomes?
6. You state in the article that the district identified performance-based indicators for each of the general learner outcomes. Can you give us an example of a performance-based indicators for civic responsibility and for ability to communicate?
7. Has the district developed performance-based assessment tasks to measure student achievement of these indicators?
8. In your article you have a figure ("Curriculum Alignment") showing general learner outcomes leading to program outcomes, which in turn lead to course outcomes. Can you explain the difference between program outcomes and course outcomes?
9. In your article you write that the program offers expanded opportunity. Can you explain what you mean?

10. You say that program outcome teams designed curriculum frameworks that contain pathways students follow to achieve the essential program outcomes. Can you say more about that?

11. What part of the program (if any) did teachers have difficulty understanding or accepting?

Did you offer classes or workshops to help teachers deal with those concerns? If so, can you describe the content of the classes or workshops?

12. What comments have you received from parents regarding the general learner outcomes?

What do they like most about the general learner outcomes?
What do they like least?

13. Have you changed report cards to reflect the new learner outcomes?

If so, can you give examples of what is included on the new report cards?
How have teachers responded to the change?
How have parents responded to the change?
How have students responded to the change?

14. Were all schools required to adopt the new learner outcomes or was participation voluntary?

15. Did you encounter any problems in introducing the general learner outcomes in the schools?

If so, what was the nature of the problems?
How did you deal with them?

16. What was the most difficult part of the transition to the general learner outcomes?

Is there anything you would do differently now?