When the North Dakota State Department of Education mandated new guidelines for accreditation, each school district in the state was required to develop and implement student performance standards and measurements for every curricular area. This paper describes one district's approach to developing a performance assessment program. Teacher committees in each school identified exit outcomes reflecting student expectations upon graduation. Outcome was defined as the demonstration of what students know, can do, and are like; program outcomes state what a student should be able to do upon completion of a program. Authentic task assessments, portfolio assessments, and criterion referenced tests were developed and validated. A typical performance assessment designed for K-5 science emphasized the process of science rather than content; students were asked to interpret, classify, compare, make observations, and predict rather than respond to multiple choice questions; writing skills were used to explain responses. Vocational and fine arts areas are designed for authentic assessment tasks; mathematics and science make use of both performance assessment and criterion referenced tests. A sample geometry assessment is provided. The paper concludes with a discussion of student learning within the context of performance assessment.
Title: Performance Based Education: How One District Handled State Mandates

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Performance Based Education: How One District State Mandates

Two years ago, I returned to my school district after a one year sabbatical. Before leaving the district, I had been a High School Business Teacher for 16 years, and returned as the District Curriculum Director. It appeared to be an interesting position: allowing me to work with K-12 teachers and become an integral part of district-wide instruction. I was enthusiastic and excited about my new responsibilities.

Fear and apprehension set in upon learning that during the time I had been out of the state, the State Department of Education had mandated new state guidelines for accreditation. Each school district in the state was now required to have student performance standards and measurements of student success for every curricular area developed and implemented for accountability purposes. My level of concern continued to rise over that first year as we worked at developing curriculum and assessment.

Writing Outcomes

The first barrier I was to encounter was teacher receptiveness to the idea of writing outcomes. At the Fall teacher inservice, an Outcome Based Education Specialist was invited to speak on OBE. The veteran teachers maintained that this "outcome-based stuff" was probably another one of those educational bandwagons our district happened to jump upon. Most teachers were willing to try because something had to be done in the area of curriculum; they just did not want all their time and effort to be pushed to the wayside when the next bandwagon came along. Funding was scarce; consequently, most of the inservicing happened during actual curriculum meetings.
During teacher workdays at the beginning of the school year, teachers in each building devised a consensus number of statements which reflected student expectations upon graduation. Those were compiled and the final result was eight district-wide exit outcomes. The exit outcomes were to become the focus for all curriculum and assessment written in the following years.

Committees were formulated at the beginning of the 1991-92 school year in the areas of math, science, and applied technology; curriculum and assessment were developed during the school year and implemented during the 1992-93 school year. Those committees continued to meet as maintenance groups during the pilot year. During the 1992-93 school year, committees were formed for the vocational, music, and visual art areas to devise curriculum and assessment. During the same year, the language arts curriculum was begun with hopes of completion during the 1993-94 school year. Social studies is scheduled for the 1993-94 school year as is the completion of the language arts/reading curricular area. Curriculum and assessment for foreign language and health/physical education will be developed during the 1994-95 school year.

Committees, inclusive of teachers, school board members, community members, and myself as the Curriculum Director, sat down to discuss and develop outcomes. When possible the teachers on the various committees usually included a representative teacher from each grade level. The first hurdle was to define what really was an outcome and was it the same as the minimal competency objectives written a few years ago. Spady (1991) referred to goals as "the hopes and dreams we have for all students" and outcomes as "the significant, culminating demonstrations we require of all students." Outcomes of significance are the demonstrations of what students know, can do, and are like; directly affecting their success in facing future
challenges and opportunities. To this day, some people still have a hard time recognizing the
difference between an outcome and a minimal competency objective.

Once committee members were clear on the task before them, the first order of business
was to develop program outcomes. Program outcomes are those outcomes which state what a
student should be able to do upon reaching the completion of a program. For example in the area
of math, a student begins the program when he/she enters kindergarten and completes the
program at the time of graduation. The remaining outcomes written in the various curricular
areas were sequential in order: level/course, and unit outcomes.

**Teacher Dialogue**

The most important aspect of writing outcomes was the landmark dialogue which emerged
from K-12 teachers talking to one another. There were major and minor skirmishes along the
way, and to be honest I believe any skirmish that occurred enriched each teacher's
understanding of what happens at other grade levels. As a once isolated classroom teacher, I
knew only too well how isolated a classroom teacher can become without even trying. Teachers
for the first time talked with each other and some elementary teachers met secondary teachers
for the first time.

By bringing teachers from various grade levels together, teachers began to talk about
what they did in their classrooms. Not only did they talk about what they were teaching; they
were discussing the relevance of what they were teaching. Teachers began to talk about what
worked in their classrooms and what did not work; secondary teachers began to talk with
elementary teachers about students they had shared and the progress made with those particular
students, and finally teachers began to understand what other teachers do.
Colleagiality was present at curriculum meetings. Teachers discussed what should be taught at various grade levels and wondered how it would be to not concern themselves with grade levels, retention issues, letter grades, and the labeling of kids which often occurs inadvertently. Committee members argued and discussed the issue of instruction occurring at developmentally appropriate levels rather than instruction occurring at the grade level which it has traditionally been taught. Both novice and veteran teachers debated the importance of the role of textbooks in the whole educational process: should they be followed, and if so, how closely.

**Developing Assessment**

Once the outcomes were in place, the next phase was to begin developing assessment. Performance assessment was looked upon as another foreign intruder as was other terminology such as authentic assessment and portfolio assessment. We discussed that whether or not these terms may or may not sound new, the concepts were indeed very reliable and had been used for more years than most of us had been teaching. Once again after teachers had thought about what occurs in their classrooms and discussed with other teachers what is done in other classrooms this idea of performance assessment did not seem to be quite so foreign any more. Performance assessment has been happening in vocational classrooms since the beginning of vocational classrooms. Elementary teachers had cornered the market on portfolio assessment many years ago, just by the very nature of what logically occurs in elementary classrooms.

In our school district, we developed performance assessments, authentic task assessments, portfolio assessments and student folders, and of course criterion referenced tests. An other issue to contend with was factors such as reliability and validity of the testing that would occur. Teachers knew that initially those factors would not be present as they are in
standardized tests; yet teachers realized the results of the test being developed were in many ways more usable than standardized test results. The performance tests would tell teachers exactly what students were capable of and at what point in the instruction phase that capability occurred. It told teachers what needed to be retaught and which students needed enrichment or expanded opportunities.

Performance assessment was developed in the area of K-5 Science. The emphasis taken was on the processes of Science rather than the content of Science. Students are asked to interpret, classify, compare, make observations, and predict rather than respond to multiple choice questions. Writing skills are used by students to explain their responses. The assessment data is kept in student folders, which can be passed on to the next year teacher.

Teachers have found the vocational and fine arts areas to be designed for authentic assessment tasks. In areas such as technology education, home economics, business, music, and visual arts, authentic assessment seemed to be the best vehicle for determining student learning. Preparing a nutritional meal, reconciling a bank statement and producing a piece of artwork are obvious examples of authentic tasks.

The math and science disciplines made use of both performance assessment and criterion referenced tests. Although elementary teachers were excited about assessing the science processes, they were not comfortable with any form of performance assessment in the area of math. In some areas of secondary math, authentic tasks were devised to test student understanding of the concept which encompassed critical thinking skills, problem-solving skills, and a student's ability to write. An example of a Geometry assessment which is being piloted this school year follows.
Criteria for designing a project:

Students will:

1. Estimate the amount of material, the steps, and the time line required to build the project and predict problems to be encountered.

2. Appraise the project for application and quality.

3. Appraise the project and describe which characteristics involve:
   a. geometric shapes and terms
   b. deductive and inductive reasoning
   c. conditional statements and their inverse, converse, and contrapositive
   d. geometric properties, postulates and theorems
   e. geometric mean
   f. trigonometry
   g. formulas for area, perimeter and volume
   h. properties of circles
   i. coordinate geometry which includes: slope, midpoint, distance, and linear equations
   j. ratio and proportion
   k. mappings and dilations
   l. geometric constructions

4. Assess and justify the shape of the project.

5. Evaluate the steps take, and time limit required to build the project.

6. Evaluate and analyze the problems encountered based upon your problem solving skills.

7. Justify, elaborate, and defend your problem solving skills.

8. Defend your design.

9. Critique your design.

10. Revise your design using your critique.

The above will be encompassed in a written report by the student and presented to the class.
Student Learning

Often students are taught to perform tasks and/or produce authentic pieces of work, but are tested with standardized and objective tests. It sometimes seems that students are more adept in making the change to performance assessment than teachers. It may be too early to clearly determine the effectiveness of student learning, yet it seems the rate of student learning should increase as a result of performance assessment. A positive correlation between performance assessment and student learning rates should be the ability of teachers to help students make the learning connection. New theories of learning instruction and assessment point to the importance of a close connection between assessment and the situations in which teaching and learning take place (Wixon and Lipson 1986, Collins and Brown and Newman 1989).

Performance assessment is not solely designed for public school systems. Teacher educators must instruct students of education to become knowledgeable about performance assessment if they must be prepared to orchestrate this type of assessment. Students, whether they are student teachers or public school students, must become active learners and participants in their own education.

Parents also must be educated about the new and different expectations of students, and assist the schools in helping to foster a meaningful learning environment. Student report cards must reflect the outcomes which are expected of students. One elementary school in our district has developed a new report card which lists the outcomes, but listing the outcomes does not seem to be enough for parents or teachers. First of all, teachers are having a difficult time explaining those reports to parents. Second, parents are still looking for the traditional report card. Change, although constant, is not readily accepted without education.
If we say that it is valuable for students to reflect on their work, to make decisions, to see where it is they need to improve, then we need to make provisions for that to happen. Assessment should empower teachers, students and parents; worthwhile classroom practices should be ignited not extinguished by assessment; students should view assessment as an opportunity to reflect upon and celebrate their effort, progress, and improvement as well as their processes and products (Tieheny, Canter, and Desai 1991).
References


