

WHAT ARE APPROPRIATE ASSESSMENT PRACTICES FOR MIDDLE SCHOOL STUDENTS?

In support of *This We Believe* characteristics:

- Assessment and evaluation programs that promote quality learning
- Multiple learning and teaching approaches that respond to their diversity
- Students and teachers engaged in active learning
- Educators who value working with this age group and are prepared to do so

What does the current knowledge in education tell us about assessment practices for middle school students? In today's educational setting, assessment takes many forms and has become a highly controversial issue. This summary provides insight about middle school assessment processes and best practices.

Definition and Explanation of Assessment

Authentic assessment refers to evaluation that makes use of real life tasks instead of contrived test items. Authentic assessment is a means of evaluating all children, including children with special needs. Assessment in the learner-centered classroom varies. Examples of types of assessment are performance tasks, portfolios, student self-assessment surveys and probes, peer assessments, journals, logs, products, and projects. Successful assessment improves learning, instruction and program effectiveness (Donald, 1997).

The integration of assessment with curriculum content and strategies is necessary to achieve the goal of assessment. Assessment and instruction must be inseparable if the program is to be successful (Marzano, Pickering, & McTighe, 1993). The question is not whether to evaluate students, but how to measure performance in ways that will enrich learning, rather than restrict it. Effective assessment is linked directly to instruction. It is an essential part of teaching, and every effort is made to assure that what is measured flows from what is taught (Boyer, 1995; Shrenko, 1994). Learner-centered classrooms and alternative assessments go hand in hand. In a learner-centered class, the assessment system (1) assesses different students differently, (2) includes student input in design and revision, (3) monitors progress continually in order to provide feedback on individual growth and progress, (4)

provides appropriate opportunities for student choice of types of products for demonstrating achievement of educational standards, (5) promotes students reflection on their own growth as learners through opportunities for self-assessment, and (6) allows diversity of competencies to be demonstrated in a variety of ways.

Assessment enables teachers to better understand how schooling is being experienced from students points of view (Stevenson, 1992; McCombs & Whisler, 1997). Students should know the criteria by which their work is being judged. Good schools frequently tell their students how they are doing and also get the students into the habit of asking the question for themselves—to search out feedback. The quality of feedback must be appropriate and exact. Unless the teacher/parent knows how the student's mind is working, it's difficult to teach him/her well. The means and standards of assessment are everyone's property (Hammond, Aness & Falk, 1995). An important element in any plan is to help students assess and evaluate themselves, because when they get older there will not be a teacher to evaluate and weigh their efforts. At the same time, self-assessment does not replace teacher assessment. Wise teachers teach students ways to grow in self-knowledge (Arnold & Stevenson, 1998).

Assessment is conducted in the true sense of the Latin root meaning of the word to sit beside. Teachers and students work together to determine what is being learned, how well it's being learned and what both the student and teacher might do to facilitate learning. Documentation is a purposeful, orderly process of maintaining information about a series of events. The documentation of concern to middle-level teachers is that which pertains to students learning, activities, ideas, and reflections. One beneficial form of documenting authentic assessment is the portfolio. The portfolio is physical evidence of the student's ability to meet learning standards. The student is given responsibility and held accountable as a learner for thoughtful decision making. In this process the student learns



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about herself or himself, the teacher knows what the student is learning, and the school gains formative information about the program. Nonjudgmental feedback, which implicitly values the student's ideas and comments, increases risk taking and engagement in the task, and also places responsibility on the student for assessing the efficacy of her or his own efforts. Pleasing the teacher becomes less important (Brooks, 1993; Marzano, Pickering, & McTighe, 1993; Stevenson, 1992).

One of the most valuable outcomes of authentic assessment is the process of doing the work. The environment of continual growth and improvement deepens knowledge as it increases problem solving, active learning, good decision making, and personal growth. The entire process of authentic assessment is still in its infancy. Authentic assessment has the potential to be a powerful learning tool for all, and not merely a summative reporting of data (Fischer, 1995).

If students are to succeed in constructing knowledge, assessment activities should require students to organize information and consider alternatives. Three qualities central to authentic intellectual work are the construction of knowledge, disciplined inquiry, and value beyond school. The third quality means that authentic accomplishments must have value beyond demonstrating the basic competencies. The tasks must require students to confront real world problems (Newmann, 1996).

Origination of the assessment movement

Standardized tests have been very popular for decades because scores are compared quickly across the country. However, standardized tests typically do not test higher-order thinking skills. An assessment revolution evolved in the late 1980's as several states began experimenting with new ways to evaluate student performance. By 1991, at least forty states had plans underway to implement some form of authentic assessment.

Authentic assessment is less costly to develop, but two to three times more expensive to administer and score. The hope is that these costs will be offset by gains in teacher professionalism, improved instruction and rising levels of student achievement. Reliability is maintained by using multiple judges, sound training procedures, clear scoring criteria and ongoing checks of scoring consistency. As students become more responsible and accountable in their learning, peer-assessment and self-assessment can alleviate some of the intensive time teachers must invest in authentic assessment.

Classroom management becomes less problematic because students are trained to work independently or in groups. Many people ask, Is the change to authentic assessment worth the effort? Those who have already moved this way say, Yes, but do not underestimate the effort involved in successful implementation of a new system. Success ultimately depends on what society values in education and how it will encourage and support it (Hart, 1994).

Assessment and development of the middle level learner

Assessment strategies are learning strategies as well as a means of making evaluative judgments. Middle level students need to participate in all phases of assessment and evaluation, setting individual and group goals, identifying ways to measure progress, and evaluating their own accomplishments. Since early adolescence is a crucial period for establishing a clear self-concept and positive self-esteem, assessment and evaluation should emphasize individual progress instead of comparison with other students. The goal is to help students discover and understand their strengths, weaknesses, interests, values and personalities. Student self-evaluation is an important means of developing a fair and realistic self-concept (NMSA, 1995).

During adolescence, students are at developmental extremes. This is a major factor in their classroom performance. During the time of personal change, understandings are especially in flux. When compared with teachers' conceptualization and organization of subject matter, young adolescents' knowledge often appears incomplete, flawed, and uneven. Teachers should anticipate this natural diversity in students' learning. Teachers must create learning conditions designed to complement young adolescents' developmental conditions and devise methods to keep students informed about their progress (Stevenson, 1992).

The newest educational reform states that all students can and must achieve a high level of mastery of traditional academic subjects. Assessments based on standards are a key element in this movement. Gender differences as well as ethnic differences contribute to each adolescent's unique self. Gender and ethnic differences often determine the outcome of an assessment, and must be taken into account when evaluating assessments. In the United States there are many students who speak English as a second language. Every effort should be made to increase the participation of English language learners in the formal assessment process through the use of accommodations. If English



language learners are not included in the assessment program, they miss an opportunity to express their full abilities and achieve their full potential (Rivera & Stansfield, 1998).

Studies of gender differences have de-emphasized item difficulty, which in the past was thought to be the primary key in male and female assessment differences. Instead focus has been placed on other factors such as item ordering, response format, content and cognitive complexity (Bielinski & Davison, 1998). Jovanovic and King (1998) concluded that boys and girls experience the performance-based science classroom differently. Although the present results support the notion that all students, irrespective of gender, benefit from active involvement in science, the question is how to ensure that every student in the science classroom has the same access to this opportunity. Individual authentic evaluation fits effectively with the young adolescent's need for peer approval. Comparative grading can be frustrating to an early adolescent. Authentic assessment emphasizes what the student has accomplished, not the failure to reach some arbitrary, uniform standard. Another characteristic of the young adolescent is the desire for independence, which often leads to breakdown in communication with adults in the family. Parental, student and school involvement with assessment bridges this gap. The student-led conference with teachers and family members leads to continuous two-way communication between home and school. A letter grade on a grade card cannot do this (NMSA, 1995).

Specific examples

The following paragraphs provide several examples of authentic assessment. In each case, the author indicates that the switch to authentic assessment was a positive endeavor.

When students monitor their own learning, they internalize the process of evaluation. In the mindful school, students become the engineers of their own videos. The video is used as a metaphor. It paints a rich and multi-dimensional portrait of a student in motion, engaged in a wide variety of authentic tasks. The student is in control of his/her own educational process. He/She can review what he/she has accomplished, stop the tape, rewind, do over, fast forward over where he/she already knows and edit (Burke, 1994).

In the spring of 1991, eleventh-grade students across California were required to do a criminal investigation project. Students were given clues and then asked to use their scientific training to solve the mystery of Mr. Obechei's untimely death. The students were field test-

ing a new approach to science assessment developed for the California Assessment Program. Long before the results were fully analyzed, one thing was clear—even the most test-jaded students were enthusiastic about the new approach to assessment. Some liked it so much they asked to take the test again. One principal reported that students paid the test the ultimate compliment: They talked more about their investigations afterward than they did about their Friday night parties (Hart, 1994).

Recently, Salt Lake City School District officials challenged each school leadership team to develop a plan that would (a) make the district's performance standards meaningful to faculty members, students, and community members, and (b) implement portfolio assessment. Students collected work from their classes that demonstrated the performance results in a working portfolio to match each of the six performance goals: students are effective communicators; students are cooperative group participants and leaders; students are complex thinkers and problem solvers; students are contributors to the community; students are quality workers and producers; and, students are self-directed learners. Once an assignment was selected, students wrote a paragraph explaining why they had chosen that assignment. Among the challenges to this method of assessment was that 7th and 8th grade students found performance results difficult to understand (Baron, Johnson & Acor, 1998).

Another example of authentic assessment is the New York State Grade Four Manipulative Skills Test. This hands-on science test transforms the classroom into a science lab. Students move around stations in small groups. In each case, students use and manipulate lab equipment to study nature, solve scientific problems and demonstrate a deeper understanding of scientific principles.

The Harvard Project Zero is part of a long-term investigation of new modes of assessment. Much of the work done at Project Zero has centered on investigating and articulating the kind of classroom environments that both support and provoke authentic assessment practices. The major focus of a student-centered classroom must be on reflection. In order to validate and bridge authentic assessment systemwide, the assessment method must inevitably change the habits, structure and policies of schools themselves:

1. Teachers must be allowed to incorporate the practices of authentic assessment in their classroom.
2. School administrators must find ways to support



teachers as reflective professionals working together to confront the issues at the heart of authentic assessment.

3. Educators must elicit support from the widest possible audience for assessment.
4. Educators must confront pressures for accountability. (Zessoules, Rieneke & Gardner, 1991)

These four focal points demonstrate that assessment is more than the development of better tests. Assessment is the development, maintenance, and implementation of an entire network of classroom practices.

Conclusive Research Findings

Donald (1997) identifies two barriers to the implementation of assessment that apply to all levels of learning:

(1) lack of global policies about learning and student progress and (2) few resources assigned to assessment. In addition to the barriers, five common benchmark practices for successful assessment are defined:

1. Use assessment to restructure the curriculum in order to develop an abilities-based class.
2. Delineate expected outcomes and make them available to the students.
3. Incorporate ongoing self-assessment of teaching and learning.
4. Use class assessment techniques to focus on cooperative projects.
5. Assess overall student progress, and determine when changes occur by using follow-up studies of retention and achievement.

A meta-analysis of forty previous studies on the instructional effects of feedback in test-like events showed that feedback given approximately a day or more after a test is beneficial. Also, feedback providing guidance to, or identification of, correct answers is more instructionally effective than feedback that simply indicates right or wrong answers (Bangert-Drowns, Kulik, Kulik & Morgan, 1991). Formative authentic assessment can fit these expectations.

Record keeping of student assessment is one of the most challenging aspects of developing a comprehensive performance assessment system. Following are helpful guidelines to follow: (1) Use as much information as possible, even information not recorded in a gradebook. (2) Weigh the various scores using sound criteria. (3) Don't assign summary scores if adequate information is not available. (4) Consider the nature of standards (for example, when assigning a summary validation for a standard that focuses on a range of knowl-

edge or skill, place emphasis on the use of a range of communication mediums). (5) Use multiple validations of assessments made over time. This type of summary validation can be used at the district level (Marzano, Pickering, & McTighe, 1993).

With the rapid increase in technology use there are more tools available for assessment which are quick and accurate. The Grady Profile is an alternative, portfolio, authentic and performance based assessment tool. The software helps pre-college teachers manage new forms of assessment, and allows students and teachers to reflect on and assess all past and present learning. The benefits of this tool are that it saves teacher time and class space; organizes portfolios with dates and titles to find fast; compares samples of work over time; collects many examples in any digital format (sound, video, etc.); prints reports in several formats to accommodate needs; provides a place for students to self-assess and reflect; and, tailors to department, school, district, state and national standards. A CD-ROM version of an electronic portfolio can serve as a cumulative collection of artifacts that demonstrate growth and contributions over time. However, ensuring confidentiality is a concern (Aurbach & Assoc., Inc., 1998).

Conclusion

Transforming schools so that they prepare all students for life in the twenty-first century requires the entire community to be engaged in discussions and decisions about learning, its assessment, and the teaching that promotes it. It is necessary to develop a community consensus around learning, teaching, and assessing. What and how to teach and how to assess progress comes from understanding how learning occurs, and rests on decisions about what students need to know and be able to do (Owen, Cox, & Watkins, 1994).

When successful authentic assessment is implemented, teachers, students and parents benefit in many ways. In the Salt Lake City research, teachers were able to make some connection between their curricula and the results. Students became more aware of the performance results and began using common terminology. By the end of the year they were becoming familiar with what a complex thinker does and what attributes characterize an effective communicator. Students had the opportunity to reflect on their own work and evaluate their performance. For many, this was a first experience. The students took pride in their portfolios and were pleased to see the amount and quality of work they had done over the year. Through the conferences and parent response letters it was evi-



dent to teachers that parents understood what their children were doing in their classes (Baron, Johnson, & Acor, 1998).

Authentic assessment programs need careful planning and broad-based learning. Authentic assessment can be a powerful force to move the school away from a factory-based, delivery-of-facts' model to a new paradigm in which students are active learners and questioning thinkers. The method of assessment drives the way instruction is delivered (Clark & Clark, 1998).

If we want students to engage in complex tasks, use knowledge in unique and meaningful ways, and cultivate higher-level mental skills such as restraining impulsivity and being aware of their own thinking, then the methods of assessment must change. Current assessment does not measure these behaviors. The nature and delivery of curriculum needs to be more strongly linked to learning and assessment (Marzano, Pickering & McTighe, 1993).

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RECOMMENDED RESOURCES

Stowell and McDaniel address assessment in Chapter 12 of NMSA's 1997 publication *What Current Research Says to the Middle Level Practitioner*, edited by Judith Irvin. Their chapter, entitled *The Changing Face of Assessment*, is an excellent summary of the research about assessment practices in middle schools. We encourage readers of this Research Summary to read the Stowell and McDaniel chapter.

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MANUSCRIPT REVIEW PROCESS

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This Research Summary was developed by the staff of the Middle Level Leadership Center (MLLC). The mission of the Center is to provide research and service to middle level education. To accomplish that mission, Center staff members work with national organizations, such as The National Middle School Association, to disseminate research information about middle level education. MLLC is a program in the Department of Educational Leadership and Policy Analysis at the University of Missouri-Columbia.

USER INPUT

The authors of this summary have attempted to review all primary research available through mainstream research sources. Anyone with significant research, not cited in the existing summary and pertinent to the topic, can send a copy of said research to the Middle Level Leadership Center, 218 Hill Hall, University of Missouri for review and consideration in the update of the research summary.

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