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Developing and Using Instructional Rubrics

Table of Contents

Using Assessment to Support Student Learning	1
Rubrics as a Key Piece of the Assessment Toolbox	3
Potential Problems with the Use of Rubrics	5
Types of Rubrics	5
Developing Effective Rubrics	6
Personalizing the Rubric	10
Evaluating Rubrics	10
Involving Students in Rubric Development and Use	12
In Summary	14
References	15
In Practice	16
Resource Overviews	18
Online Update	19
Books in Brief	20
Related ERS Resources	21

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Developing and Using Instructional Rubrics

How do teachers decide whether a student’s piece of writing is deserving of an “A” or a “B”? What standards can be used to accurately evaluate students’ oral presentations? How can students be taught to evaluate their own and each other’s work effectively?

In situations such as these, teachers are increasingly using rubrics. Rose describes a rubric as a “scoring guide that differentiates between levels of development in a specific area of performance or behavior.... Rubrics differ from traditional methods of assessment in that they examine students in the actual process of learning, clearly showing them how their work is evaluated” (n.d., online). Starr (2000) adds that rubrics answer the age-old student question of “Why did you give it this grade?” by setting forth specific criteria, defining specific requirements for meeting those criteria, and assigning numerical scores to each level of performance.

“Instructional rubrics help teachers teach as well as evaluate student work.... At their very best, rubrics are also teaching tools that support student learning” (Andrade 2003, online).

This *ERS Focus On* discusses the importance of assessment to student learning, as well as the role rubrics can play in an effective assessment system. It then presents information about how to develop rubrics, how to evaluate them, and, finally, how to involve students in developing and using rubrics to further their own learning.

Using Assessment to Support Student Learning

Assessment—and especially student self assessment—is most powerful when viewed as a learning activity. The Northwest Regional Educational Labora-

tory (NWREL) reminds us of the potential of assessment as a “tool for learning.” In its view:

The criteria developed to judge the quality of student work are also critical to making performance assessment a powerful tool for learning because the criteria clearly communicate what is valued in the work—what it takes to be successful. These criteria for quality are teachable to students, allowing them access to the “secrets” of success.... When students and teachers begin to share the same vision of success, they quickly develop a vocabulary for discussing this vision. All are working toward the same clear and identifiable standard. This improves student achievement (1998, online).

This approach is consistent with the understanding that students can become more actively engaged in their own learning if they better understand the criteria against which they are being assessed. It also supports the view of:

assessment events . . . [as] powerful intervention tools. One of the most effective ways to do this is to bring students into the assessment process. Students who participate in the thoughtful analysis of quality work in order to identify and understand its critical elements become better at demonstrating their achievement and learning. They learn to identify and analyze their own shortcomings, take responsibility for improving them, and gauge their progress as they move forward (North Carolina Department of Public Instruction 1999, online).

The North Carolina Department of Public Instruction provides a definition for assessment that aligns well with this discussion; assessment is:

a sample of student performance or behavior used to obtain information or provide feedback about learning targets in order to make decisions and take action about individual

“The heart of assessment is a continuing process in which the teacher, in collaboration with the student, uses information to guide the next steps in learning” (Jandris 2001, 4).

students, groups of students, [and] instruction, programs, or schools (1999, online).

This definition identifies elements essential to effective use of assessment to improve instruction. Assessment should focus on learning targets (standards and objectives). It should provide information about student learning at both the individual and classroom levels. And it should be followed by action. In addition, the definition does not limit assessment activities to formalized tests—and it recognizes that any one assessment can only sample student knowledge and skills. Thus, an effective classroom assessment program uses a wide variety of approaches and does not wait until the end of a unit or the end of a year to assess student learning.

Another aspect of effective classroom assessment is becoming increasingly clear: assessment and instruction should not be viewed as entirely separate processes. Although there are typically end-of-unit tests—or something similar—in most classrooms, some of the best information is generated by *embedded* assessment, assessment that “is *part of instruction* and informs the teacher how to adjust instruction *during the teaching process*” (Alaska Department of Education and Early Development 1996, online; italics added).

Jandris describes some characteristics of classroom-based assessment well-positioned to serve as a tool to improve teaching and learning:

- Assessment is embedded and ongoing and provides prompt, “user friendly” feedback so that adjustments can be made as needed, not just reported at the end of each learning improvement cycle.

- Day-to-day classroom assessments emphasize formative assessments—information that provides an early indication of whether or not learning is taking place—to minimize problems that might arise if learning barriers are not promptly identified and addressed.
- Day-to-day classroom assessments include qualitative data such as information from interviews, journals, and observations as well as quantitative measures within an effective multiple-measures approach.
- Students are told the purpose of an assessment and how this information will be used (2001, 14).

NWREL also provides a more detailed description of assessment criteria that can directly support student engagement in their own learning—and so higher student achievement:

They help students to answer questions [such as]: *What is expected? What does good performance look like? How will I know when I’m successful? Why did I win? How can I win again?* There are three essential features to make it work: (1) having a clear picture in our own heads of the criteria for success, (2) making sure the criteria are right—they really do describe the important features of quality, and (3) letting students “in on it” (1998, online).

Used effectively, rubrics contain all three of these features. They provide students with models of excellent, acceptable, and poor work and provide teachers with performance evaluation and grading criteria. By clearly delineating performance expectation, rubrics help students move toward higher levels of performance and simultaneously ensure teachers apply assessment criteria consistently across students.

Finally, effective assessment strategies—including rubrics—can help teachers answer questions such as:

- Does the class as a whole understand the content? Has it mastered necessary skills?
- How about individual students?

- Is sufficient progress being made toward annual goals?
- Are there particular problem areas that might need to be addressed by modifying the instructional approach used?

Rubrics as a Key Piece of the Assessment Toolbox

Jandris (2001) talks about teachers' need for an "assessment toolbox" that includes a range of approaches. Rubrics that provide descriptions of a high-quality product—and of the progression students may go through while working toward mastery—can be an important part of that toolbox.

"Letter grades and even brief comments, such as 'Nice work,' provide students with relatively little information to guide or support them in future tasks or projects.... Assessments should be about providing more and better information to students—and their families—about their work" (Allen in Dunne 2000, online).

Rubrics can be used across all grade levels and content areas. The language used to describe the criteria should be appropriate to the developmental level of the students. For younger children, icons or graphics can be used to help students develop understanding of performance levels. For example, teachers of elementary students may use a system of smiley faces to represent achievement levels.

Teachers on a team or department can work together to develop rubrics. Arter and McTighe provide this example:

Teachers in a high school science department worked together to develop a common scoring

rubric for a laboratory report. They pooled their collective wisdom and looked at actual samples of student lab reports. Over time, their thinking led them to a consideration of the role of lab reports in promoting the larger goals of student reasoning, science process skills, and communicating effectively in science. Eventually, these features appeared in the rubric as a way to track the development of these competencies in the context of lab reports. During the first week of each semester, the teachers distribute the rubric and review the criteria with the students to ensure that they clearly understand the important elements of a quality report and how their reports will be evaluated. Sample reports illustrating strong and weak performance on the criteria are discussed. The teachers have observed that the overall quality of student lab reports have improved since they all began using the same rubric consistently within the department (2000, x).

Rubrics can also be an important part of a schoolwide focus on a skill such as writing if teachers work together to develop a rubric appropriate for use across classrooms. By encouraging students to use the rubric across content areas and providing opportunities for them to do so, schools can help students develop an essential skill and, in addition, learn that effective approaches to learning are generalizable.

The use of rubrics also aligns well with standards-based education. Across the United States, educators at state, district, and school levels are developing more explicit "maps" to reaching standards. Many of the standards that focus on evolving skills and understandings can have this evolution reflected in rubrics that describe what the desired skill (standard) looks like as well as steps students might take in reaching this goal.

Jandris provides a description of standards that makes clear how well-designed standards are similar to rubrics:

The term "standards" can refer to an exemplary performance in an area of study that will

serve as a benchmark for students and teachers. Standards provide a model and criteria against which students and teachers can measure achievement during the learning process. When used in this context, standards enable students, teachers, and parents to set goals for educational and personal achievement, and to judge the extent to which those goals have been achieved.

When standards are used as benchmarks, they are made known to students and parents at the beginning of a unit or course of study. Students know exactly what they are working toward (2001, 7, 11).

Use of instructional rubrics can help teachers “assess process, performance, and progress” (Whittaker, Salend, and Duhaney 2001, 9).

Finally, the use of rubrics can help to support a focus on education as a process. As students work to shift their learning “products” upward on a rubric-based scale, they are learning how to improve their own learning skills simultaneously with achieving specific standards.

Whittaker, Salend, and Duhaney (2001) discuss specific benefits of the use of rubrics for students and teachers; for example, students benefit because:

- they see specific criteria needed for success in an assignment or assessment;
- they are able to develop their metacognitive or thinking skills by monitoring their own progress on assignments or tasks;
- they are encouraged to develop their self-assessment skills by becoming knowledgeable about the standards needed for success; and
- they are able to use the rubric as a final check before submitting an assignment.

Flynn and Flynn identify another important benefit of the use of rubrics—they can serve as a tool to promote student accountability for their own learning. They expand on this:

As teachers, many times we do too much for the students, taking on many of their responsibilities. With the use of a rubric, students are held accountable for their work. They know exactly what is expected, when parts are due, and how they will be graded. It then becomes the student’s responsibility to ensure that all requirements for the assignment are met (2004, 5).

Andrade identifies additional ways rubrics support student learning. In her view, they “refer to common weaknesses in students’ work and indicate how such weaknesses can be avoided and can be used to evaluate their works-in-progress and thereby guide revision and improvement” (2003, online).

Finally, rubrics can serve as a motivational tool since “Rather than directing youngsters toward past perfor-

Why use instructional rubrics? In Andrade’s view, they

- are easy to use and explain;
- make teachers’ expectations very clear;
- provide “more informative feedback” than other forms of assessment about both student strengths and areas in need of improvement;
- support student learning, especially if students use rubrics to self-assess;
- support skill development since rubrics include examples of the desired product;
- promote the development of student understanding when rubrics are discussed; and
- can support the development of higher-level thinking, especially if students are asked to explain and defend why their work should be classified in a particular way using the rubric (2003, online).

mance (“Why did I get a B instead of an A?”), rubrics can teach them to focus on current and future performance (“What steps can I take to progress to the next level?”) (Rose n.d., online).

Potential Problems with the Use of Rubrics

Although they are supportive of the use of rubrics, Glasgow and Hicks also recognize some potential problems. Development of rubrics obviously takes time, and time is a precious and typically scarce commodity for teachers. In addition, rubrics that are not well developed can create a source of confusion for students. Finally, “rubrics can create dependence and not foster ‘learning how to learn’ strategies unless teachers deliberately build this goal” into instruction (2003, 68).

Popham discusses some “flagrant flaws”—such as excessive detail—seen in some commercial and teacher-developed rubrics. In his view, rubrics should be designed to encourage productive use by teachers and students. Most importantly,

Each evaluative criterion must represent a key attribute of the skill being assessed. [And] each criterion must be teachable in the sense that teachers can help students increase their ability to use the criterion when tackling tasks that require that skill (1997, 75).

Comments such as these make clear the importance of using only well-designed rubrics and educating students about how to use them in ways that support student learning.

Types of Rubrics

Effective rubrics meet the needs of the students and teachers using them and so often are tailored to serve a specific purpose. For example, rubrics can be holistic or analytic, general or task-specific, and used for formative or summative assessment purposes.

- *Holistic rubrics* require teachers to focus on one level or rating of performance that best exemplifies the overall quality of performance or product. They are most often used to provide an overview of student work (Whittaker, Salend, and Duhaney

Rubric—A set of guidelines for giving scores. A typical rubric states all the dimensions being assessed, contains a scale, and helps the rater place the given work properly on a scale (Jandris 2001, 84).

Anchors—The samples of work or performance used to set the specific performance standard for each level of a rubric. Thus, attached to the paragraph describing a level-6 performance in writing would be samples of writing that illustrate what a level-6 performance looks like. The anchor for the top score is often called the “exemplar” (Jandris 2001, 72).

2001), or when it is difficult to break out individual components of an assignment.

- In contrast, *analytic rubrics* focus on multiple aspects or components of performance and include several different quality indicators. Each is rated separately, allowing teachers to help students focus on all components of the product (Whittaker, Salend, and Duhaney 2001).
- *General rubrics* contain criteria that are general across tasks. This type of rubric allows the same rubric to be used for multiple tasks, but may lack specificity.
- *Task-specific rubrics*, on the other hand, are unique to a specific task and provide a reliable form of assessment to measure performance on a specific task. The drawback of task-specific rubrics, however, is that they are time-consuming to create, and it may be difficult to develop rubrics for all specific tasks (Schreyer Institute for Teaching Excellence 2004).
- Finally, rubrics can be used for both *formative* and *summative* classroom assessments. A rubric that clearly delineates a teacher’s expectations for a project or assignment serves as a guide for students and encourages them to monitor their progress toward standards as they work to complete the assignment. When rubrics are used to inform instruction and measure learning progress, they

What Type of Rubric Works Best for Your Purposes?

Use a holistic rubric when:

- You want a quick snapshot of achievement.
- A single dimension is adequate to define quality.

Use an analytic rubric when:

- You want to see relative strengths and weaknesses among component tasks.
- You want detailed feedback.
- You want to assess complicated skills or performance.
- You want students to self-assess their understanding or performance.

Use a general rubric when:

- You want to assess reasoning and skills applicable across tasks.
- All students are not doing exactly the same task.

Use a task-specific rubric when:

- You want to assess knowledge.
- When consistency of scoring is extremely important (Schreyer Institute for Teaching Excellence 2004, online).

serve as a form of formative assessment. Rubrics also can be used to assign a final grade for a project or assignment, thus serving as a form of summative assessment (Jackson and Larkin 2002).

Some examples of rubrics—two best described as analytic and one as holistic—are presented on pages 7-9. The problem-solving rubric developed by Montgomery (figure 1) is analytic. It breaks down problem solving into component skills and describes characteristics of varying levels of competence for each of these. Although it was developed for use in a math class, it could be modified to address the development of more

general problem-solving skills. The model for assessing student writing developed by Scala (figure 2) is another analytic rubric that divides the writing task into subskills and then rates each of these.

In contrast, the North Carolina rubric for assessing writing content (figure 3) would assign a single global—or holistic—score to the product. Each of the scores, however, is aligned with descriptions of what writing at that level of proficiency would look like.

Developing Effective Rubrics

The standards movement has provided motivation for states and districts to become more actively involved in developing rubrics. Rubrics that parallel standards can provide both concrete targets for teachers and students and a useful way to measure progress toward the standards. However, individual teachers, grade-level teams, or a school staff may find it helpful to develop additional rubrics for specific purposes.

While there is no “recipe” for creating rubrics, it is important they meet the needs of the students and teachers using them. Shellard and Protheroe remind us “the key to effective use of rubrics is not simply their content. Instead, it is important that rubrics be well-aligned with the task, have meaning for students, and can be applied consistently” (2004, 73).

In the most general sense, the development of rubrics begins with identifying exemplary standards of performance for a particular lesson, activity, or assignment. Teachers should consider the following very basic questions when developing a rubric:

- What is the best that can be done?
- How do I know it is the best?
- What contributes to it being the best?

Some teachers find it helpful to first identify models or samples of high-quality work and to then analyze the characteristics that make the sample “high quality.” Or a teacher might begin by identifying the desired outcome and then developing a description of the student performance or product that would demonstrate this achievement of this goal (Phillip 2002).

Figure 1.—Analytic Problem-Solving Rubric

Skill	Level 4	Level 3	Level 2	Level 1
Making a plan	Develops sophisticated strategies and applies them within an effective plan	Independently chooses appropriate strategies and applies them effectively	Shows evidence of plans and use of a strategy, which may or may not be applied effectively	Needs teacher assistance to understand the problem
Solving the problem	Provides a correct and complete solution; may show more than one way to solve the problem	Independently provides a correct and complete solution	Makes a minor math error leading to wrong answer or incomplete solution	Needs assistance to choose an appropriate strategy; applies a strategy such as “guess and check” in a random way
Describing the solution	Explains reasoning with clarity, coherence, and insight	Independently explains reasoning in a well-organized way with justifications	Gives an answer and begins to elaborate upon explanations with teacher assistance	Gives incorrect solution even with direction; makes major math errors; explains reasoning in a way that is difficult to follow
Feedback: _____				
Source: Montgomery 2000, 326.				

While the rubric development process requires time and careful reflection, there are some helpful suggestions for how to address the task. Hall and Salmon describe six “steps” to rubric development:

- Describe an exemplary response of all attributes that describe a quality performance.
- Brainstorm the qualities of an exemplary response and all essential components of the desired performance.
- Categorize the criteria—translate the components into descriptors of the task or project.
- Select the rubric format (i.e., analytic or holistic) keeping in mind factors such as the purpose of the

assessment, the expected outcomes, and potential users of the rubric.

- Design the rubric by describing the levels, exemplary to poor.
- Select the scale to be used, keeping in mind that a rubric with too many levels may be confusing to students and difficult to apply (excerpted from Hall and Salmon 2003, 8-9).

Although the steps described above all implicitly address the importance of the “language” of rubrics, it is this aspect of rubric development that is often most challenging. Wiggins provides some general suggestions for the content of rubrics:

Figure 2.—Criteria for Evaluating Student Writing

	4	3	2	1
Development of Topic	Original, interesting development of topic	Acceptable development of topic	Attempts to develop topic but shows weaknesses	Lacks plan to develop topic
Organization and Use of Support Material	Full development of ideas through excellent use of support material	Adequate use of support material to develop ideas	Little use of support material to develop ideas	Does not use support material to develop ideas
Sentence Variety	Skillful use of sentence variety	Some sentence variety	Little sentence variety	Lack of sentence variety
Language	Uses rich vocabulary and images	Uses general language	Uses incorrect language	Frequently uses incorrect language
Conventions	Few or no errors	Errors do not interfere with meaning	Errors interfere with meaning	Errors seriously interfere with meaning

Source: Scala 2001, 36.

- Rubrics should effectively discriminate among the performances. Consider the concept of validity. The rubric should measure what the teacher has determined is important to know/understand/do.
- Rubrics should use language for judgements that can make fine discriminations between performances/products without compromising reliability. Consider reliability as the consistency of what is being measured.
- Rubrics should be both generic and specific. They should relate to general curricular or instructional goals while providing judgements about specific aspects of the performance or product.
- Rubrics should use language (or descriptors) that students can use for self-assessment or self-correction (Wiggins 1998, 184).

When designing rubrics, a common challenge is avoiding unclear language, such as “creative begin-

ning.” Montgomery suggests a key to designing effective rubrics is including specific language since “nonspecific, vague words such as creative, interesting, and boring . . . mean different things to different people” (2000, 327). She provides some examples:

- nonspecific—the opening of the oral presentation was creative.
- more specific—the presentation opened with an amusing fact, a short demonstration, a colorful visual, or a personal anecdote about the topic.
- nonspecific—the presentation was boring.
- more specific—the presenter spoke in a monotone (2000, 327).

Goodrich notes that “if a rubric is to teach as well as evaluate, it is essential terms be defined for students” (1996-97, 16). Some teachers approach this problem by discussing criterion terms after distributing a

Figure 3.—North Carolina Writing Assessment Scoring Model for Content (Grades 4, 7, and 10)

Points	Description
4	<ul style="list-style-type: none"> • Topic/subject is clear, though it may or may not be explicitly stated • Maintains focus on topic/subject throughout the response • Organizational structure establishes relationships between and among ideas and/or events • Consists of a logical progression of ideas and/or events and is unified and complete • Support and elaboration are related to and supportive of the topic/subject • Consists of specific, developed details • Exhibits skillful use of vocabulary that is precise and purposeful • Demonstrates skillful use of sentence fluency
3	<ul style="list-style-type: none"> • Topic/subject is generally clear, though it may or may not be explicitly stated • May exhibit minor lapses in focus on topic/subject • Organizational structure establishes relationships between and among ideas and/or events, although minor lapses may be present • Consists of a logical progression of ideas and/or events and is reasonably complete, although minor lapses may be present • Support and elaboration may have minor weaknesses in relatedness to and support of the topic/subject • Consists of some specific details • Exhibits reasonable use of vocabulary that is precise and purposeful • Demonstrates reasonable use of sentence fluency
2	<ul style="list-style-type: none"> • Topic/subject may be vague • May lose or may exhibit major lapses in focus on topic/subject • Organizational structure may establish little relationship between and among ideas and/or events • May have major lapses in the logical progression of ideas and/or events and is minimally complete • Support and elaboration may have major weaknesses in relatedness to and support of the topic/subject • Consists of general and/or undeveloped details, which may be presented in a list-like fashion • Exhibits minimal use of vocabulary that is precise and purposeful • Demonstrates minimal use of sentence fluency
1	<ul style="list-style-type: none"> • Topic/subject is unclear or confusing • May fail to establish focus on topic/subject • Organizational structure may not establish connection between and among ideas and/or events • May consist of ideas and/or events that are presented in a random fashion and is incomplete or confusing • Support and elaboration attempts to support the topic/subject but may be unrelated or confusing • Consists of sparse details • Lacks use of vocabulary that is precise and purposeful • May not demonstrate sentence fluency

Source: North Carolina Department of Public Instruction 2003, online.

A good rubric should:

- address all relevant content and performance objectives;
- define standards and help students achieve them by providing criteria with which they can evaluate their own work;
- be easy to understand and use;
- be applicable to a variety of tasks;
- provide all students with an opportunity to succeed at some level; and
- yield consistent results, even when administered by different scorers (Starr 2000, online).

rubric. Another alternative is to list ways in which students could meet a criterion.

Personalizing the Rubric

Arter and McTighe (2000) present an adaptation of a rubric developed for mathematics problem solving that contains two interesting characteristics. First, each section is introduced by a key question. Second, the language—for example, “your strategies” or “you used”—is intended to speak directly to students as they use the rubrics. Figure 4 presents the “Strategies and Reasoning” portion of the rubric.

Another challenge when designing rubrics is avoiding unnecessarily negative language that may also be too vague to be helpful. For example, the use of the word “boring” doesn’t tell students much about the action, or how the description could be improved. A better alternative is to describe the action or scenario described as “boring” and to compare it with the highest level of quality. Doing so helps students to know exactly what they did wrong and how they can do better next time (Goodrich 1996-97).

Articulating gradations of quality also can be a challenge. To overcome this obstacle, Goodrich suggests spending time “thinking about criteria and how best

to chunk them before going on to define the levels of quality” (1996-97, 16-17).

After developing a rubric, test it by asking students or other teachers to apply it. Does the rubric support consistency of rating? Are there areas of the rubric that are less clear than others? Spending some time on this step is likely to make the rubric a more useful tool for both you and your students. Finally, periodically revisit the rubric, re-evaluate, and—perhaps—redesign it in response to changes in instructional goals and student needs.

Evaluating Rubrics

The potential advantages of using rubrics have been briefly discussed. However, much depends on the quality of the rubrics themselves. Poorly written rubrics—perhaps those including vague or undefined terms—are unlikely to be a helpful resource for either teachers or students. Thus, an important step that should precede using a rubric to evaluate student work or presenting the rubric to students should be evaluating the rubric from several perspectives. Features of effective assessment criteria developed by the Northwest Educational Regional Laboratory apply equally well to rubrics. For example, effective criteria:

- *Are clear enough when everyone can* list the criteria, provide the same definition for features listed in the criteria, identify the same samples of strong and weak performance, and use the same words for describing why the samples are strong or weak; and
- *Are the “right” ones when:*
 - No performance that is weak has to be judged strong using the criteria.
 - No performance that is strong has to be judged weak using the criteria.
 - After repeated use, one can’t think of anything else that needs to be included or left out.
 - Teachers, students, and parents consistently reproduce the criteria when asked to sort work for quality and describe the reasons for their judgments (excerpted from 1998, online).

Figure 4.—Rubric for Assessing Strategies and Reasoning

Key Question for Strategies and Reasoning: Is there evidence that the student proceeded from a plan, applied appropriate strategies, and followed a logical and verifiable process toward a solution?

EMERGING	DEVELOPING	PROFICIENT	EXEMPLARY
<ul style="list-style-type: none"> Your strategies were not appropriate for the problem. You didn't seem to know where to begin. Your reasoning did not support your work. There was no apparent relationship between your representations and the task. There was no apparent logic to your solution. Your approach to the problem would not lead to a correct solution. 	<ul style="list-style-type: none"> You used an oversimplified approach to the problem. You offered little or no explanation of your strategies. Some of your representations accurately depicted aspects of the problem. You sometimes made leaps in your logic that were hard to follow. Your process led to a partially complete solution. 	<ul style="list-style-type: none"> You chose appropriate, efficient strategies for solving the problem. You justified each step of your work. Your representation(s) fit the task. The logic of your solution was apparent. Your process would lead to a complete, correct solution of the problem. 	<ul style="list-style-type: none"> You chose innovative and insightful strategies for solving the problem. You proved that your solution was correct and that your approach was valid. You provided examples and/or counterexamples to support your solution. You used a sophisticated approach to solve the problem (Arter and McTighe 2000, 110-111).

“Although the format of an instructional rubric can vary, all rubrics have two features in common: (1) a list of criteria, or ‘what counts’ in a project or assignment; and (2) gradations of quality, with descriptions of strong, middling, and problematic student work” (Andrade 2003, online).

Arter and McTighe describe a “rubric for evaluating the quality of rubrics” (2000, 45)—what they call a metarubric. This metarubric includes four traits—content, clarity, practicality, and technical soundness.

Rubrics are evaluated from the perspective of each of these traits using a three-point scale: 3=ready to roll, 2=on its way but needs revision, and 1=not ready for prime time. For example, a rubric could be assessed as “ready to roll” on the trait of clarity if two teachers would be likely to give a product or performance the same rating. It would be “on its way but needs revision” if teachers might agree on some aspects but not on others. And it would be “not ready for prime time” if the language used is vague, with definitions lacking for important terms.

Finally, the Chicago Public Schools district provides some questions for teachers to ask when selecting or evaluating a rubric:

- Does the rubric relate to the outcome(s) being measured?

- Does it address anything extraneous?
- Does the rubric cover important dimensions of student performance?
- Do the criteria reflect current conceptions of “excellence” in the field?
- Are the categories or scales well-defined?
- Is there a clear basis for assigning scores at each scale point?
- Can the rubric be applied consistently by different scorers?
- Can the rubric be understood by students and parents?
- Is the rubric developmentally appropriate?
- Can the rubric be applied to a variety of tasks?
- Is the rubric fair and free from bias?
- Is the rubric useful, feasible, manageable, and practical? (2000, online).

“The goal of assessment should not be only to earn grades. The goal of assessment should be to help students know ‘how to win again.’ Clear performance criteria have this effect.”

“The criteria developed to judge the quality of student work are also critical to making performance assessment a powerful tool for learning because the criteria clearly communicate what is valued in the work—what it takes to be successful. These criteria for quality are teachable to students, allowing them access to the ‘secrets’ of success” (Northwest Regional Educational Laboratory 1998, online).

Involving Students in Rubric Development and Use

Jandris (2001) views well-developed assessment strategies as addressing two key student questions: Am I meeting the teacher’s standards? And, what help do I need to succeed? Effectively designed rubrics certainly can help to answer these questions, and involving students in rubric development can ensure the rubrics provide a clear sense of direction.

Rubrics can be created jointly between teachers and students. Students—with a teacher’s guidance—can develop performance criteria, thus learning how a task, performance, or assignment will be evaluated. Involving students in this manner helps to clarify the key components of the performance or task and aids student understanding.

In addition, it helps to further the goal of involving students as active participants in their own learning. Student-developed rubrics encourage learners to participate in the grading process—an act that helps students become more thoughtful judges of their own and others’ work. Finally, kindergarten teacher Charlotte Sassman explains that she involves her students in rubric development because “then it is much easier to hold them to its standards” (Rose n.d., online).

Goodrich describes a multistep process for educating students about rubrics—and then involving them in the development of rubrics for a specific purpose:

- *Step 1:* Review models. Show both good and bad models. Discuss what is good. Identify characteristics of models.
- *Step 2:* Identify criteria. Discuss quality work. Make list of criteria.
- *Step 3:* Identify levels of quality. Develop continuum by describing worst and best. Expand continuum by gradations between worst and best.
- *Step 4:* Practice using rubric. Assess models identified in Step 1. Discuss why products are evaluated at given level.

Figure 5.—Classroom Writing Criteria Chart: What Do Good Writers Do?

<p>Writing Process</p> <ul style="list-style-type: none"> • Choose a good topic • Keep a journal • Confer with the teacher • Confer with other students • Use revision strategies • Make several drafts • Share what they write 	<p>Qualities of Good Writing</p> <ul style="list-style-type: none"> • Include beginning, middle, and end • Start sentences in different ways • Use powerful verbs • Use lots of details • Make sure it makes sense 	<p>Grammar, Spelling, and Mechanics</p> <ul style="list-style-type: none"> • Check spelling • Check for capitals at beginning of sentences • Write neatly
<p>Source: Strickland, Ganske, and Monroe 2002, 199.</p>		

Figure 6.—Student Self-Evaluation T-Chart

<p>Things I am doing well in writing</p>	<p>One thing I need to work on</p>
Empty space for student input	Empty space for student input
<p>Source: Strickland, Ganske, and Monroe 2002, 199.</p>	

- *Step 5:* Have students self-assess work. Have students peer-assess work. Provide teacher feedback on progress.
- *Step 6:* Have students revise work based upon feedback.
- *Step 7:* Assess by teacher using the same rubric students have used for peer and self-assessment (adapted from Goodrich 1996-97, 15-16).

Hall and Salmon (2003) describe an activity—Determining the World’s Best Chocolate Chip Cookie—that can be used to help even young children understand rubrics and rubric development. Students describe how the world’s best chocolate cookie would taste and then brainstorm essential components. In groups or as a class, they develop a rubric—including a scale including terms such as outstanding and poor—that could be used to assess cookies.

Another activity used two Web sites identified by a teacher as exemplary and poor. The class reviewed the Web sites and discussed features of each that made one site outstanding and the other inadequate from the standpoint of three major categories—content, design, and literacy skills. Students worked in groups—then as a class—to develop indicators for the three categories that could be used to evaluate Web sites. Using the indicators, students evaluated other Web sites and then discussed how they had applied the rubric (Whittaker, Salend, and Duhaney 2001).

The above examples involved students in rubric development and also provided an opportunity for students to learn how to use rubrics. Whittaker, Salend, and Duhaney (2001) view this step as critical. Students—especially those who are inexperienced in the use of rubrics—will benefit from opportunities for guided practice with rubrics. In addition, this practice

time can help identify areas of the rubric that may need clarification.

Teachers can strengthen the instructional benefits of rubrics by consistently encouraging students to use them to:

- assess what they have been asked to do before beginning an assignment;
- monitor their own progress while working on an assignment; and
- “use the rubric as a final checkpoint before turning in the assignment” (Jackson and Larkin 2002, 41).

Rubrics also can be used to encourage students to focus on process as well as product. For example, one teacher asked her students two questions: “What do good writers do?” and “What makes writing good?” As students voiced their suggestions, the teacher wrote their ideas on chart paper. She demonstrated to her students that their answers fell into three categories—writing process; qualities of good writing; and grammar, spelling, and mechanics—and helped her students sort their responses into these categories. After this session, the teacher copied the chart onto poster board and displayed it in the classroom for students to use as a reference (Strickland, Ganske, and Monroe 2002) (see figure 5 on page 13).

To help them assess their progress on all three aspects identified, students were given a T-chart (see figure 6) on which they recorded at least one thing from each of the three categories of process, content, and mechanics that they were doing well and one thing from each category that they needed to work on. Students kept their T-charts in their writing folders and referred to them over several weeks as the teacher helped each

of them focus on areas identified as needing more work (Strickland, Ganske, and Monroe 2002).

This focus on process may be especially helpful to students who—for whatever reason—have less than efficient approaches to learning. Rubrics can assist learners in developing self-regulation or self-management skills by focusing on factors such as homework completion and submission, the neatness of the work, or indicators a student has read the assignment.

Finally, Goodrich cautions against asking students to use rubrics to assign themselves a grade that “counts.” In her view, “the point is for the rubric to help students learn more and produce better final products, so including self-assessments in grades is unnecessary and can compromise students’ honesty” (1996-97, 17).

In Summary

Andrade provides an excellent overview of the potential advantages of making rubrics part of every teacher’s assessment toolbox. In her view, effective rubrics:

are also teaching tools that support student learning and the development of sophisticated thinking skills. When used correctly, they serve the purposes of learning as well as of evaluation and accountability. Like other authentic approaches to assessment, rubrics blur the distinction between instruction and assessment (2003, online).

At their very best, rubrics reflect standards and student needs. They are well-written and provide concrete indicators of what students should be working toward. Finally, time and instruction are provided for students to learn how to use rubrics effectively.

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In Practice

The articles featured in In Practice are gleaned from descriptions of educators' experiences developing and maintaining successful programs and practices.

The following In Practice excerpts describe different approaches to developing and using instructional rubrics.

Creating Rubrics through "Negotiable Contracting"

Some New York City schools are using an approach termed "negotiable contracting" to involve their students in the assessment and rubric development process. Stix describes elements of the process in a document from the U.S. Department of Education:

Before the teacher presents his or her own expectations of the work, (s)he asks students their opinion of what *they* think would constitute quality work. Across the "negotiating table," teacher and class arrive at a consensus that is mutually acceptable. The result is that students feel like valued participants in the assessment process. Thus, they are motivated to strive toward those criteria-based standards (1997, online).

Stix uses an example from the social studies classroom of Martha Polin, a former teacher and current school principal:

Let's take as an example a social studies teacher . . . Mrs. Martha Polin, who assigned her students the task of creating a mural for a geography lesson. Before they began any work on the murals, she arranged the class in cooperative learning groups and asked them to consider, "If you were me, what qualities would *you* look for in deciding how to grade each mural? Come up with six criteria that you would look for." After allowing time for discussion, Mrs. Polin asked each group to rank the qualities they had selected in order of importance, from most important to least important.

Next, each group presented its top criteria to the class. Mrs. Polin listed these criteria on the board and the class was asked to choose which ones were most relevant to the lesson. With the teacher's guidance, they agreed on three qualities: 1) detail and depth; 2) a clear focal point; and 3) high-quality design. They then were asked, "What should be considered 'poor,' 'fair,' 'good,' and 'excellent' performance for each criterion?" One student suggests that a poor mural would have most of the facts wrong, and the other students readily agree. "What about if only some of the facts are wrong?" Mrs. Polin asks. . . . Finally, after some more discussion, a consensus is reached among the class that getting only some of the facts wrong would earn a "fair" grade. After more discussion, they also decide that getting all the facts right should earn a "good" grade while getting an exceptional amount of accurate, interesting information from unusual sources would earn a rating of "excellent" (1997, online).

The negotiation process helped students develop a better understanding of expectations for their mural project. In addition, the process provided an opportunity for active student involvement in developing a rating system that would have a direct impact on their grades.

Source: Adapted from Stix, A. (1997). *Creating rubrics through negotiable contracting and assessment*. U.S. Department of Education. Retrieved from <http://www.interactiveclassroom.com/006%20-%20Creating%20Rubrics.pdf>

Schoolwide Writing Rubric (Sunset Middle School, Longmont, Colo.)

Teachers at Sunset Middle School—including those teaching electives—collaborated on developing a rubric (see page 17) for evaluating written assignments. All teachers agreed to use the rubric, although language arts teachers sometimes use more detailed rubrics for specific assignments.

Since use of the rubric first began in 2001, the number of students at the proficient and advanced levels in writing have increased at every grade level. Principal Brian Childress recommends that schools looking to implement similar programs first "develop a culture of excellence and then encourage staff to come up with ways to improve their craft."

Sunset Middle School Schoolwide Writing Rubric

	Advanced (4)	Competent (3)	Developing Competence (2)	Incomplete (1)
Ideas and Organization	<ul style="list-style-type: none"> followed directions completely turned in on time clear and detailed evidence of PREWRITING clear and detailed evidence of EDITING AND REVISION fresh and original ideas stay fully focused and relevant to the TOPIC INTRODUCTION clearly states and defines topic BODY provides a logical arrangement of main ideas and elaborate details satisfying CONCLUSION makes a strong statement about topic excellent flow to ideas and paragraph through use of TRANSITIONS 	<ul style="list-style-type: none"> followed directions evidence of PREWRITING evidence of EDITING AND REVISION ideas stay mostly focused and relevant to the TOPIC INTRODUCTION generally states and defines topic BODY provides a general arrangement of main ideas and supporting details CONCLUSION makes a predictable statement about topic flow to ideas and paragraph through use of TRANSITIONS is apparent 	<ul style="list-style-type: none"> followed most of the directions little evidence of PREWRITING little evidence of EDITING AND REVISION ideas are broad and may not be directly relevant to the TOPIC INTRODUCTION is vague and topic may be implied BODY includes ideas and details that are confusing or lack support/explanation CONCLUSION is short and does not make a statement about topic lack of TRANSITIONS causes a problem with flow; confusing order of ideas 	<ul style="list-style-type: none"> followed few of the directions no evidence of PREWRITING no evidence of EDITING AND REVISION ideas are disorganized and irrelevant to the TOPIC INTRODUCTION is missing or does not state topic BODY includes ideas that are not related and provides no support CONCLUSION is missing or is not related to topic TRANSITIONS are missing
Voice, Word Choice, Sentence Fluency, and Conventions	<ul style="list-style-type: none"> writing is ENGAGING and comes from the heart uses FIGURATIVE LANGUAGE and/or imagery (creates pictures in reader's mind and uses striking DESCRIPTIVE WORDS) uses accurate and precise VOCABULARY (easy to understand what writer is saying) has few if any errors in MECHANICS (punctuation, spelling, grammar, and usage) 	<ul style="list-style-type: none"> writing is occasionally ENGAGING and sincere uses some FIGURATIVE LANGUAGE and/or imagery uses a mix of general and precise VOCABULARY (at times it's not easy to understand what writer is saying) has some errors in MECHANICS (in general, errors do not detract from meaning or readability) 	<ul style="list-style-type: none"> writing is bland or boring; writer does not attempt to make the piece interesting lacks descriptive words; colorless VOCABULARY is simple and general has several errors in MECHANICS (errors do detract from meaning or readability; tough to understand) 	<ul style="list-style-type: none"> writing is vague and simple no descriptive words VOCABULARY is limited and misused has many errors in MECHANICS (reader must decode meaning due to errors)
Presentation and Format	<ul style="list-style-type: none"> final product is in correct format and is exceptionally presented presentation is above and beyond what was asked for 	<ul style="list-style-type: none"> final product is in correct format/ directions were followed 	<ul style="list-style-type: none"> final product has some flaws in format/ presentation (some problems with neatness; a few steps in directions were missed) 	<ul style="list-style-type: none"> final product is not in correct format (directions were not closely followed)

Sources: Correspondence with Principal Brian Childress and Sunset Middle School Web site: http://www.stvrain.k12.co.us/SMS/school_policies/write_rubric.html (n.d.).

Resource Overviews

Rubrics: A Handbook for Construction and Use

The authors have designed this handbook for use by teachers and administrators. It examines questions such as: What is a rubric? How can rubrics be used to support the evaluation process? How can teachers make better use of existing rubrics? Each chapter of the book is written to stand alone so that the reader may pick and choose those topics of immediate interest.

Further, each chapter includes adaptable samples focusing on topics such as:

- construction and use of rubrics;
- developing rubrics for young learners;
- using rubrics across content areas;
- rubrics as a motivational tool; and
- teaching students how to use rubrics.

TO ORDER: *Rubrics: A Handbook for Construction and Use* (168 pages) is available for \$32.95 from Scarecrow Education, 4501 Forbes Blvd., Suite 200, Lanham, MD 20706. Phone: (800) 462-6420. Web site: <http://www.scarecroweducation.com>.

Scoring Rubrics in the Classroom: Using Performance Criteria for Assessing and Improving Student Performance

This guide, written by Judith Arter and Jay McTighe, was developed to help teachers learn how to be more consistent in judging student performance and to provide assistance to students in their efforts to self-assess. The text aims to help readers achieve these three goals:

- Clarify the targets of instruction, especially for hard-to-define problem solving.
- Provide valid and reliable assessment of student learning.
- Improve student motivation and achievement by helping students understand the nature of quality for performances and products.

Each chapter is framed by a question and includes illustrative stories, practical examples, tips and cautions, and a

summary of key points and recommended resources for further information. An especially helpful chapter provides rubrics for assessing rubrics. The text includes both a glossary of terms and an index.

TO ORDER: *Scoring Rubrics in the Classroom: Using Performance Criteria for Assessing and Improving Student Performance* (189 pages) is available for \$29.95 from Corwin Press, 2455 Teller Road, Thousand Oaks, CA 91320. Phone: (800) 818-7243. Web site: <http://www.corwinpress.com>.

A Collection of Performance Tasks and Rubrics

Publishing company Eye on Education offers the following series books on subject- and grade level-specific performance tasks and rubrics:

- *A Collection of Performance Tasks and Rubrics: Foreign Languages*
- *A Collection of Performance Tasks and Rubrics: High School Mathematics*
- *A Collection of Performance Tasks and Rubrics: Middle School Mathematics*
- *A Collection of Performance Tasks and Rubrics: Primary School Mathematics*
- *A Collection of Performance Tasks and Rubrics: Upper Elementary School Mathematics*
- *English Teacher's Guide to Performance Tasks and Rubrics: High School*
- *English Teacher's Guide to Performance Tasks and Rubrics: Middle School*

The foreign language-focused book includes samples of student work as exemplars in addition to rubrics. The performance assessments highlighted were contributed by teachers across the country and include open-ended and extended response exercises, projects and portfolios, behavioral assessments (skits, debates, discussion, etc.), and student self-assessment tools.

The mathematics and English books provide a collection of performance tasks and scoring rubrics for a number of important topics in each subject area. Included are samples of student work that clarify the tasks and anchor the points of the scoring rubric.

TO ORDER: Individual volumes in the series each contain about 200 pages; each available for \$29.95 from Eye on Education, 6 Depot Way West, Larchmont, NY 10538. Phone: (914) 833-0551. Web site: <http://www.eyeoneducation.com>.

Online Update

The following Web sites are useful sources of information on developing and using instructional rubrics.

<http://instech.tusd.k12.az.us/rubrics/generator.html>

This link, hosted by the Tucson Unified School District, provides a variety of links to rubric-related Web resources.

<http://rubistar.4teachers.org/index.php>

“Rubistar” is described on this Web site as “a tool to help the teacher who wants to use rubrics but does not have the time to develop them from scratch,” although teachers can also develop their own rubrics through the site. Resources are included for areas such as oral presentations, research and writing, and art.

<http://www.thinkinggear.com/tools/>

The “Rubric Machine” is an interactive tool designed to help teachers construct scoring rubrics for a specific lesson, assignment, or project. The “tool shelf” allows users to: (1) take a quick look at the Rubric Machine, (2) learn about instructional rubrics, and (3) create an instructional rubric.

http://landmark-project.com/classweb/tools/rubric_builder.php

The Rubric Builder “enables teachers to build effective assessment rubrics and to make them available over the World Wide Web.” In addition, the site provides a search tool to allow easy access to these resources.

<http://www.sdcoe.k12.ca.us/score/actbank/trubrics.htm>

This site, hosted by the San Diego County Office of Education, includes sample rubrics for a wide variety of subjects and assignments—ranging from a research report to Web site design.

http://intranet.cps.k12.il.us/Assessments/Ideas_and_Rubrics/Create_Rubric/create_rubric.html

Resources developed by the Chicago Public Schools explain steps for developing an effective scoring rubric “from scratch.”

http://scifiles.larc.nasa.gov/text/educators/tools/eval/investigation_rubric.html

This “Scientific Investigation Rubric” provided by the NASA SciFiles offers teachers an example criterion to assess steps in the scientific process based on benchmark standards. The site also provides a Cooperative Learning Rubric at **http://scifiles.larc.nasa.gov/text/educators/tools/eval/coop_rubric.html**.

<http://www.elm.maine.edu/development/>

This “Electronic Learning Marketplace” hosted by the University of Southern Maine offers tutorials on subjects such as assessment methods and rubrics for classroom observation. A tutorial on rubrics can be found at **<http://www.elm.maine.edu/development/tutorials/rubrics/index.stm>**.

<http://www.nwrel.org/assessment/toolkit98/>

Provided by the Northwest Regional Educational Laboratory, Toolkit98 is designed to assist classroom teachers to become better assessors of student learning. Chapter 4, “Grading and Reporting—A Closer Look,” is particularly useful for developing and implementing classroom rubrics.



Books in Brief

Teaching Writing with Rubrics: Practical Strategies and Lesson Plans for Grades 2-8.

In this guide, authors Laura Flynn and Ellen Flynn (\$34.95, Sage Publications, 800-818-7243, www.sagepub.com) provide step-by-step instructions, sample rubric-based assessments, lesson plans, and reproducible forms. One section offers specific instructional and grading rubrics as well as student examples for several categories of writing, including autobiographical, persuasive, research paper, news article, fairy tale, and science fiction.

35 Rubrics & Checklists to Assess Reading and Writing: Time-Saving Reproducible Forms for Meaningful Literacy Assessment (Grades K-3) and 40 Rubrics & Checklists to Assess Reading and Writing (Grades 3-6), both by Adele Fiderer (\$10.95 and \$14.95, Scholastic, Inc., 800-770-4662, www.scholastic.com). Each of these teacher resources contains reproducible forms focusing on reading and listening comprehension. A variety of writing assignments—for example, essays and letters—is discussed, with scoring tips, planning forms, and follow-up strategies provided.

25 Fun and Fabulous Literature Response Activities and Rubrics: Quick, Engaging Activities and Reproducible Rubrics that Help Kids Understand Literary Elements and Use Reading Strategies for Better Comprehension (Grades 4-8), by Christine Boardman Moen (\$13.95 Scholastic, Inc., 800-770-4662, www.scholastic.com). Similar to the above texts from Scholastic, this reproducible guidebook contains projects and rubrics designed to help older students explore literary elements such as plot, character, setting, and theme.

Rubrics for Assessing Student Achievement in Science, Grades K-12, by Hays B. Lantz (\$32.95, Corwin Press, 800-818-7243, www.corwinpress.com). This book provides assessment tools tied to science standards developed by AAAS, NRC, and NSTA. Further, it differentiates by learning levels and provides scaffolding of increasingly complex expectations across grades K-12.

The Rubrics Way: Using MI to Assess Understanding, by David Lazear (\$35.95, Zephyr Press, 800-232-2187, www.zephyrpress.com). This text makes use of Gardner's Multiple Intelligences to offer guidelines and examples of rubrics that align with aspects of all eight intelligences.



Related ERS Resources

Order the following resources by phone, fax, mail, or email, or through the **ERS Online Catalog** at www.ers.org.

Essentials for Principals: Data-Based Decision Making (#5443) Base price: \$19.95.

This guide provides an overview of the uses of all assessment data to improve instruction. Included is information about: implementation of an effective schoolwide assessment program; the assessment “process,” including aspects such as reflecting on the data and providing interventions based on assessment results; ways to enhance the effectiveness of classroom assessments in providing useful data; and the use of technology to strengthen the assessment process.

ERS Info-Files:

ERS’s signature information resource provides an overview of research and information to give you a general understanding of a particular K-12 topic or concern. Each *Info-File* contains 70-100 pages of articles from professional journals, summaries of research studies and related literature, and an annotated bibliography that includes an ERIC-CIJE search. Base cost-recovery price: \$40. Subscriber discounts available.

Grading—Student Evaluation (#5121)

Focuses on controversies about the limitations of traditional grading, describes alternative grading methods, and discusses the development of criteria for the assessment of student performance.

Student Performance Standards and Benchmarks (#5272)

Discusses the need for standards to assess student performance. Describes how local schools and districts can use national curriculum standards to create their own, more specific standards and benchmarks.

Authentic Assessment (#5240)

Focuses on assessment techniques meant to duplicate real-life situations while allowing students to demonstrate their knowledge and abilities. Covers aspects of the discussion surrounding authentic assessment and performance-based assessment, methods of authentic assessment including rubrics, and how authentic assessment has been applied to various school subjects.

Assessing Young Children (#5339)

Covers teacher and student perspectives on standardized testing, arguments for and against these tests, problems that arise from their use, and possible solutions to these problems.

Differentiating Instruction: Teaching Diverse Learners (#5222)

Discusses adjusting or implementing pedagogical techniques to account for student differences due to culture, special education needs, or learning styles. Provides conceptual models to facilitate these teaching strategies.

The Informed Educator Series:

The *Informed Educator Series* is a valuable resource for time-pressed administrators: a series of concise, easy-to-read summaries of the latest research on current issues in education. There are currently more than 40 titles available, with six new summaries produced each year. Base price: \$9.60 each. Subscriber and quantity discounts available. Minimum order of 10 copies, any combination of titles.

Early Literacy Assessment (#5435)

This *Informed Educator* addresses the valuable role effective assessment plays in any high-quality early literacy program, particularly in the identification of reading problems before they begin to interfere with a child’s learning of content knowledge. It looks at the goals of assessment, and the roles of formal and informal assessment measures in meeting these goals. The summary also provides examples of specific assessment methods to highlight the ways in which assessment can be successfully embedded in classroom instruction.

Using Assessment Data to Improve Instruction (#5423)

The standards and accountability movement of the last decade has resulted in the gathering of more assessment data about students than ever before. Often, the results from high-stakes assessments have been used merely to grade and rank students and schools. But a new trend is emerging—education leaders are now beginning to see the power of using assessment data to improve instruction at the school, classroom, and student levels. This *Informed Educator* provides an overview of the use of assessment data to improve instruction. It presents evidence that using data effectively can improve instruction and student achievement; gives examples of schools and districts that are actively using data to guide their instructional decisions; and summarizes what research and practice say about essential components of a good data-based decision-making system.



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