

REFLECTIONS

CONDUCTING ASSESSMENTS

In the time of change, learners inherit the earth, while the learned find themselves beautifully equipped to deal with a world that no longer exists.

—Eric Hoffer

There is far more to assessment than giving students tests. It is vital to assess what students know, understand, and retain over time (academic learning). It is equally important to assess (a) the quality and level of their reasoning processes and (b) their skills and competencies (such as oral and written communication skills and skills in using technology). In today's complex and ever-changing world, a broad view of education is needed rather than a narrow focus on the memorization of facts. More than ever, schools need to focus on teaching students appropriate work habits (such as completing work on time and striving for quality work and continuous improvement) and attitudes (such as a love of learning, a desire to read good literature, and a commitment to democracy).

In achieving these complex and long-term responsibilities of the school, teachers need to conduct three types of assessments: diagnostic, formative, and summative. These assessments need to focus on both the process and the outcomes of learning and instruction. Assessments need to take place in more authentic settings as well as in the classroom. The number of stakeholders in education have increased as the world economy and the interdependence among nations have increased. And the stakes of many of the assessments have increased, as students' futures are more and more determined by what they have learned and how many years of formal education they have completed. The standards and testing movement has increased the stakes for student achievement for students, teachers, administrators, and parents. As the seriousness of educators' responsibilities increase, so does the need to use a wider variety of assessment procedures.

Making Assessments Meaningful and Manageable

To conduct an assessment, you collect information about the quality or quantity of change in students, groups, classes, schools, teachers, or administrators. Your assessment is effective if it achieves its goals while it maintains effective working relationships between you and the individuals you are assessing and increases their motivation to participate in future assessments. If one of more of these conditions is not achieved, then your assessment is not effective.

Two of your central issues in conducting assessments are making the assessment meaningful and ensuring the assessment is manageable. When assessments are perceived to be meaningless, student and teacher motivation to participate in them decrease and may become nonexistent. An assessment tends to be seen as meaningless when its purpose seems trivial; the procedures, criteria, and rubrics seem ambiguous or impossible to understand; and the results have no relevance to future efforts to learn. Meaningless assessments are viewed as a waste of time and as deserving little commitment of energy and other resources. It is possible that the state department officials, administrators, or teachers may consider an assessment meaningful whereas students do not. All participants need to believe the assessment is meaningful. The persons whose performance is being measured need to believe the assessment is meaningful, otherwise they will be unmotivated to participate and the results will be both invalid and unreliable. In schools, it is usually students who are assessed; therefore, students especially, need to believe the assessment is meaningful.

When conducting an assessment of students, you ensure that they (a) perceive the assessment as having a significant purposes; (b) clearly understand the procedures, criteria, and rubrics being used; and (c) perceive the results as providing a clear direction for future learning. To ensure that students perceive the assessment's purpose as being significant, you involve students in setting the goals, structure the goals so they are interdependent with the goals of significant others, structure the assessment and lesson so that joint efforts of group members are required, and highlight the relevance of the assessment to students' immediate lives. To ensure that the assessment procedures, criteria, and rubrics are clearly understood, you explain them and you involve students in creating them. To ensure the results are useful, you structure the assessment and lesson so that the results are used in planning the lesson and setting the learning goals.

If teachers feel overwhelmed by the demands of the assessment or are actually unable to commit the resources needed, then either the assessment will not be conducted or it will be conducted in a way that compromises its validity and reliability. If an assessment requires considerable time and effort but yields information that is seen as trivial, teachers will be less motivated to manage it. In the United States teachers' time and energy are in such high demand that little is left for assessment. Many of the most valuable and useful assessment procedures cannot be used unless student help is organized and utilized. You increase the manageability of an assessment when you mobilize the resources needed to conduct the assessment and ensure that the information you obtain is valuable enough to justify the resources expended.

When conducting an assessment of students, therefore, you expand the pool of available resources by utilizing student help in (a) setting the goals (thereby inducing student commitment to achieve the goals), (b) planning the assessment procedures and the criteria and rubrics to be used to assess their work, (c) collecting and analyzing the data, and (d) recording the results and communicating them to interested stakeholders. In general, the more meaningful students perceive the assessment to be, and the more students are involved in managing the assessment, the more effective and useful the assessment is (see Table 17.1).

Involving Students in Assessment

The key to meaning and manageability is student involvement. One teacher working by him- or herself can no longer manage the entire assessment system. The most natural sources of help for teachers are students and colleagues. Students provide the most help because they are available at all times. The more you involve students in setting the learning goals, planning the procedures and constructing the criteria and rubrics, conducting the assessments, analyzing the results to determine the direction and nature of future learning efforts, recording the results, and communicating the

TABLE 17.1 Meaningful and Manageable Assessment

LESS MEANINGFUL ASSESSMENT	MORE MEANINGFUL ASSESSMENT	LESS MANAGEABLE ASSESSMENT	MORE MANAGEABLE ASSESSMENT
<i>Trivial Purpose</i>	<i>Significant Purpose</i>	<i>Teacher-Only Resource</i>	<i>Teacher Resources Plus Student Help</i>
Goals imposed	Students help set goals	Imposed learning goals	Setting goals students are committed to achieve
Isolated goals	Interdependent goals	Imposed procedures	Deciding on procedures
Work alone	Joint efforts required	Teacher only	Collecting and analyzing data
Unrelated to students' lives	Relevant to students' lives	Teacher only	Recording and communicating results
<i>Ambiguous Procedures</i>	<i>Clear Procedures, Standards, Rubrics</i>		
Unexplained	Explained		
Imposed as is	Students help create them		
<i>Unrelated to Future Efforts</i>	<i>Provide Direction for Future Efforts</i>		
No useful information	Reveal gaps in learning		
No useful information	Reveal next learning goals		

results to interested stakeholders, the greater is the meaning attached to the assessment and the more manageable assessments become.

Students need to be involved in assessments for many reasons, not the least of which is that teachers' time is so limited that, without student help, very little assessment would actually take place. Involving students allows you to accomplish the following tasks:

1. Provide students with powerful learning experiences that increase their achievement. Assessing the accuracy, quantity, and quality of one's own and classmates' work tends to make the assessment process an important and potent learning experience.
2. Conduct more frequent assessments. Whereas teachers, for example, do not have the time to assess the quality of student writing and presenting every day, students can write and present every day and receive feedback from classmates.
3. Assess a wider variety of outcomes (see Activity 17.1). With student help it is possible to assess cognitive reasoning, skills and competencies, attitudes, and work habits as well as achievement.
4. Use more modalities in assessing students' work. Besides reading and writing, students can observe each other presenting, performing cognitive and social skills, or engaging in creative endeavors.
5. Provide more sources of information. Self- and peer assessments add important supplementary information to teacher assessments.
6. Reduce the bias inherent in making reading and writing prerequisites for engaging in a performance. Students who cannot read can listen to classmates' summaries and explanations, and students who cannot write can explain what they have learned orally.

ACTIVITY 17.1 ■ YOUR ASSESSMENT PLAN

Given below are generic assessment targets and procedures. In planning your assessment program, check the targets that you want to assess and then check the procedures you want to use. Match the procedures with the targets so it is clear how you will assess each target.

TARGETS TO BE ASSESSED	PROCEDURES USED TO ASSESS
<input type="checkbox"/> Academic learning	<input type="checkbox"/> Goal-setting conferences
<input type="checkbox"/> Reasoning process/strategies	<input type="checkbox"/> Standardized tests
<input type="checkbox"/> Skills and competencies	<input type="checkbox"/> Teacher-made tests
<input type="checkbox"/> Attitudes	<input type="checkbox"/> Written compositions
<input type="checkbox"/> Work habits	<input type="checkbox"/> Oral presentations
	<input type="checkbox"/> Projects
	<input type="checkbox"/> Portfolios
	<input type="checkbox"/> Observations
	<input type="checkbox"/> Questionnaires
	<input type="checkbox"/> Interviews
	<input type="checkbox"/> Learning logs and journals
	<input type="checkbox"/> Student management teams

7. Reduce the possibility of teacher bias. Even the most fair and well-meaning teacher has biases that affect assessments. Some teachers are biased toward neatness; others are biased toward complexity of reasoning. The more students are involved in the assessment process, the more peer assessments balance teacher biases.
8. Create social support systems for remediation and enrichment activities. The limits on teachers' time prevent teachers from monitoring all the time each student's efforts to learn and requires that only a sample be assessed. In small cooperative groups, classmates can continuously monitor each other's activities. In addition, some students are more susceptible to peer influence than teacher influence. Students can keep track of each other's level of mastery, hold each other accountable for learning, and encourage remediation efforts and extending one's competencies.
9. Assess group as well as individual outcomes. Numerous assignments involving creative and scientific projects can only be assessed at the group level. Unless students work together, such assignments cannot be given.
10. Make assessment procedures congruent with instructional practices. Because cooperative learning promotes higher achievement than does competitive, or individualistic, learning, most teachers use it. Utilizing cooperative groups for assessment purposes enables teachers to enhance instruction and assessment at the same time.

Need for Cooperative Learning

If students are to be involved in assessment, you have your choice of structuring that involvement in a competitive, individualistic, or cooperative way. You can create competitive involvement by ranking students on the basis of their involvement from best to worst. You can create individualistic involvement by having students work alone to attain a criteria of excellence for involvement. You can create cooperative involvement by having students work in small groups to help set and achieve the assessment goals. Of these three choices, cooperative involvement provides the most commitment and the most effort in the assessment process. Competitive and individualistic students are not very helpful in creating a high-quality and continuously improving assessment system. To provide quality assessment, students have to be committed to classmates' learning as well as their own. Such commitment only comes from clear, positive interdependence and individual accountability, promotive interaction, appropriate social skills, and group processing (the basic elements of cooperation).

Cooperative learning groups provide the setting, context, and environment in which assessment becomes part of the instructional process, and students learn almost as much from assessing the quality of their own and their classmates' work as they do from participating in instructional activities.

1. Cooperative learning allows assessment to be integrated into the learning process. Continuous assessment requires continuous monitoring and support, which can best be done within cooperative learning groups.
2. The new assessment practices are so labor intensive that students who are sincerely committed to each other's learning and success may need to be involved.
3. Cooperative learning groups allow more modalities to be used in the learning and assessment process while focusing on more diverse outcomes.
4. Cooperative learning groups allow groupmates, in addition to the teacher and curriculum materials, to be sources of information.
5. Involving groupmates in assessment reduces possible biases resulting from the teacher being the sole source of feedback and from the heavy reliance on reading and writing as assessment modalities.
6. Cooperative learning groups provide each student help in analyzing assessment data, interpreting the results, and implementing improvement plans.

It is difficult to imagine a class in which cooperative learning groups do not help make the assessment system more manageable or how a comprehensive assessment program can be managed without cooperative learning groups.

CONFERENCING WITH STUDENTS

Without clear learning and instructional goals, assessment cannot take place. The goals are created and reemphasized in three types of conferences with each student: (1) a goal-setting conference is conducted to establish a contract containing the student's learning goals, (2) progress assessment conferences are conducted to review the student's progress in achieving his or her goals, and (3) a postevaluation conference is conducted in which the student's accomplishments are explained to interested parties.

Assessment begins with a goal-setting conference in which the student's learning goals and responsibilities for helping other students learn are established. The goal-setting conference may be between the teacher and the student (T/S), the teacher and the cooperative learning group (T/G), the cooperative learning group and the student (G/S), and a cooperative learning group and another group (G/G). In all

cases, the emphasis is on helping students set and take ownership for learning goals that meet the START criteria (specific, trackable, achievable, relevant, transferable). The goal-setting conference contains four steps: (1) diagnosis of current level of expertise, (2) setting START goals, (3) organizing support systems and resources to help each student achieve his or her goals successfully, and (4) constructing a plan for utilizing the resources to achieve the goals and formalizing the plan into a learning contract.

Progress assessment conferences provide wonderful opportunities for teachers to hear how students are thinking about their work. Some schools recommend that a student be interviewed at least once per month. An elementary school teacher would then have one progress assessment conference per day whereas a secondary school teacher may need to have four or five conferences per day. Group interviews provide another option.

The hard truth is that most teachers do not have the time to conference with each individual student, whether in a goal-setting conference, a progress assessment conference, or a postevaluation conference. This does not mean that such conferences cannot happen. Teachers can engineer and supervise such conferences through appropriate use of cooperative learning groups. Groups can regularly have progress assessment conferences with each member while the teacher listens in or pulls aside one individual student for a conference. Finally, postevaluation conferences can be held with the teacher, student, and parents. These conferences are especially interesting and fruitful when the student leads them.

ASSESSMENT PROCEDURES

Once students have formulated and agreed to their learning goals, a variety of assessment procedures can be used. The assessment procedures include tests, compositions, presentations, projects, portfolios, observations, interviews, questionnaires, and learning logs and journals.

Tests and Examinations

Both standardized and teacher-made tests may be used to assess student learning. Standardized tests are often high-stake events for which students need to be carefully prepared. Teacher-made tests are often a routine part of an instructional program to assess quickly and efficiently a broad sampling of students' knowledge. They may be multiple choice, true-false, matching, short answers, interpretative, or essay. Although many assessment procedures are effective, testing remains a mainstay in what teachers do. Cooperative learning groups may be tested using the GIG (group preparation-individual test-group test) procedure, group discussion, and Teams-Games-Tournament procedures.

Compositions and Presentations

Every educated person should be able to present what they know in written and oral form. These are difficult competencies, and students need to write and present every day to become skilled writers and presenters. This presents an assessment problem because someone has to read each composition, listen to each presentation, and provide helpful feedback. Using cooperative learning groups to assess members' performances accomplishes four goals at the same time. It allows students to engage in the performance frequently, receive immediate and detailed feedback on their efforts, observe closely the performances of others to see what is good or lacking in others' performances, and provide the labor needed to allow students to engage in a performance frequently.

Two of the most common performances assessed are compositions and presentations. In composition pairs, students are assigned to pairs; discuss and outline each other's composition in their pairs; research their topic alone; write the first paragraph of each composition in pairs; write the rest of the composition alone; edit each other's composition; rewrite the composition alone; re-edit each other's compositions; sign off on their partner's composition, verifying that it is ready to be handed in; and then process the quality of the partnership. The procedure for presentations is very similar.

Individual and Group Projects

A standard part of most every course is allowing students to be creative and inventive in integrating diverse knowledge and skills. This is especially important in assessing multiple intelligences and the ability to engage in complex procedures such as scientific investigation. Projects allow students to use multiple modes of learning. The use of cooperative learning groups allows projects to be considerably more complex and elaborate than any one student could do alone.

Portfolios

Students become far more sophisticated and educated when they can organize their work into a portfolio that represents the quality of their learning in a course or school year. There is no substitute for having students collect and organize their work samples and write a rationale connecting the work samples into a complete and holistic picture of the student's achievement, growth, and development. The resulting portfolio may feature the student's "best works" or the "process" the student is using to learn. Like all other complex and challenging tasks, students need considerable help in constructing their portfolios and in presenting them to teachers, parents, and other interested stakeholders. Portfolios, therefore, may be more manageable when they are constructed within cooperative learning groups. The group can help each member select appropriate work samples and write a coherent and clear rationale. The portfolio may also include the group's assessment of the student's learning and growth. An interesting extension of portfolios is to have the student, the teacher, and the student's cooperative learning group all independently decide on what represents the student's best work, and why. They then have a conference to compare their assessments and resolve any differences.

Observing

There is a limit to the information gained by having students turn in completed tests, compositions, projects, and portfolios. Answers on a test and completed homework assignments tell teachers whether students can arrive at a correct answer. They cannot, however, inform teachers as to the quality of the reasoning strategies students are using, students' commitment to classmates' success and well-being, or the extent to which students' can work effectively with others. Teachers must find a way to make students' covert reasoning processes overt, demonstrate behaviorally their attitudes and work habits, and show how skillfully they can work with others. Observing students in action thus becomes one of the most important assessment procedures.

Using observation as an assessment tool requires that you understand the basis of observing, know how to prepare for observing, know how to observe, and know how to summarize the data for use by students and other stakeholders. Preparing for observing involves deciding what actions to observe, who will observe, what the sampling plan will be, constructing an observation form, and training observers to use the form. Observations may be formal or informal, structured or unstructured. In

summarizing observations, the data may be displayed in bar or run charts, feedback is then given to the students or other interested parties, and the recipients reflect on the feedback and set improvement goals.

One of the primary goals of observation procedures is to assess the use of social skills. The assessment of social skills consists of several steps. First, you review the assumptions underlying the teaching of social skills. Social skills must be learned. Every cooperative lesson is a lesson in social skills as well as academics. You must understand what social skills to teach and how to teach them. When teaching social skills, be specific, start small, and emphasize overlearning.

Second, you teach students each social skill. You show the need for the skill; define it with a T-chart; set up practice situations in which students can use the skill; ensure that students receive feedback on their use of the skill, reflecting on how to improve; and ensure that students persevere in practicing the skill until it becomes automatic. Third, as part of teaching students social skills, you structure cooperative learning situations so students can use the social skills and you can observe them doing so. Fourth, you intervene in the cooperative learning groups to ensure that members are using the social skills appropriately and to reinforce them for doing so.

Fifth, you facilitate students' self-diagnosis of their level of mastery of the targeted social skills. Students can complete checklists or questionnaires to do so. Sixth, you assign students to increase their social competence by having them set improvement goals. Seventh, you assess students' knowledge of social skills. Finally, you report on the level of students' social skills to interested stakeholders, such as students, parents, and potential employers.

Interviewing

Closely related to observing students in action is interviewing students. Like observing, interviews can make the covert overt through asking students more and more detailed questions about their reasoning processes and strategies. The strength of the interview is that it is personal and flexible. The personal nature of interviews allows you to build a more positive, supportive, and trusting relationship with each student. The flexibility of interviews allows you to interview either one student or a small group of students before, during, and after a lesson and to use the interview for both assessment and teaching purposes. Socrates is an example of a teacher who used interviewing as his major instructional strategy.

Attitude Questionnaires

All learning has affective components, and in many ways the attitudes students develop may be more important than their level of academic learning. Getting an A in math class, for example, does a student little good if he or she has learned to hate math and never wants to take a math class again. Obviously, loving math and wanting to take math courses throughout one's educational career is far more important than the level of achievement in any one math class. Attitudes largely determine whether students continue to study the subject area, become uninterested, or want to avoid it in the future.

In assessing student attitudes, you (a) decide which attitudes to measure, (b) construct a questionnaire, (c) select a standardized measure if it is appropriate, (d) administer the measures near the beginning and end of each instructional unit, semester, or year, (e) analyze and organize the data for feedback to interested stakeholders, (f) give the feedback in a timely and orderly way, and (g) use the results to make decisions about improving the instructional program. In constructing a questionnaire, each question needs to be well worded and requires either an open-ended (fill-in-the-blank or free response) or closed-ended (dichotomous, multiple-choice, ranking, or

scale) response. The questions are then arranged in an appropriate sequence and given an attractive format. A standardized questionnaire, such as the Classroom Life instrument may be used to measure a broader range of student attitudes.

Learning Logs and Journals

Students often do not spend enough time reflecting on what they are learning and how it relates in a personal way to their lives. Learning logs and journals help students document and reflect on their learning experiences. Logs tend to emphasize short entries concerning the subject matter being studied. Logs are especially useful in conjunction with informal cooperative learning. Journals tend to emphasize more narrative entries concerning personal observations, feelings, and opinions in response to readings, events, and experiences. These entries often connect what is being studied in one class with other classes or with life outside the classroom. Journals are especially useful for having students apply what they are learning to their action theories.

Traditionally, assessment procedures have been quite limited. Teachers often notice the light in a student's eye, changes in voice inflections, the "aha" of discovery, the creative insight resulting from collaborating with others, the persistence and struggle of a student determined to understand complex material, the serendipitous use of skills and concepts beyond the context in which they were learned, and reports from parents and other teachers on the changes in a student resulting from a course of study. What has been lacking is a systematic way of collecting and reporting such evidence.

Times have changed. The diverse assessment procedures discussed in this book are quite developed and may be used effectively as part of any instructional program. Each has its strengths and its weaknesses. Each can be integrated into ongoing instructional programs and managed when they are used as part of cooperative learning. Together, they allow cooperative learning groups to engage in total quality learning.

TOTAL QUALITY LEARNING

Total quality learning begins with assigning students to teams and assigning them the task of continuously improving the quality of the processes of learning and assessment. Continuous improvement is the ongoing search for changes that increase the quality of the processes of learning, instructing, and assessing. Each time students write a composition, for example, they should find at least one way to improve their writing skills. The changes do not have to be dramatic. Small, incremental changes are fine.

To improve continuously the processes of learning and assessment, students need to engage in eight steps. First, they must form teams. Quality learning is not possible without cooperative learning groups. Second, team members analyze the assignment and select a learning process for improvement. Third, members define the process to improve, usually by drawing a flow chart or cause-and-effect diagram. Fourth, team members engage in the process. Fifth, students gather data about the process, display the data, and analyze it. Tools to help them do so include observation forms, Pareto charts, run charts, scatter diagrams, and histograms. Sixth, on the basis of the analysis, team members make a plan to improve the process. Seventh, students implement the plan by engaging in the learning process in a modified and improved way. Finally, the team institutionalizes the changes that do in fact improve the quality of the learning process.

One way to enhance the use of total quality learning is through the use of student management teams. A student management team consists of three or four students

plus the instructor who assume responsibility for the success of the class by focusing on how to improve either the instructor's teaching or the content of the course. The group members monitor the course through their own experience and the comments of classmates. There are four stages of using student management teams: forming the team by recruiting and choosing members, building a cooperative team by structuring the five basic elements, improving the instruction and content of the course, and reaping the long-term gains from the process by carrying on the improvements to the next course.

TEACHING TEAMS AND ASSESSMENT

The days are gone when a teacher, working in isolation from colleagues, could instruct, assess, and report results by him- or herself. The practices have become so labor intensive and complex that one teacher cannot expect to do them alone. Realistically, collegial teaching teams are needed to coordinate and continuously improve the instruction, assessment, and reporting process. Teachers need to begin their instruction, assessment, and reporting efforts with forming a collegial teaching team. This allows them to capitalize on the many ways teams enhance productivity. The team focuses its efforts on continuously improving both student learning and the quality of instruction. The team as a whole conducts the assessment and reporting process by developing rubrics, applying the rubrics effectively, and reporting results to interested audiences. The team then establishes a continuous improvement process focusing on maximizing the quality of instruction for each member. While engaging in the continuous improvement process, the team also engages in continuous retraining, aimed at improving the effectiveness of their use of the assessment procedures. The use of collegial teaching teams provides the framework for developing school-wide criteria and standards to be used in assessment.

GIVING GRADES

Teachers need to assess student learning and progress frequently, but only occasionally do they need to evaluate or give grades. Assessing involves checking on how students are doing, what they have learned, and what problems or difficulties they have experienced. Grades are symbols that represent a value judgment concerning the relative quality of a student's achievement during a specified period of instruction. Grades give students and other interested audiences information about (a) students' levels of achievement and (b) the success of the instructional program. Grades provide students access to certain educational opportunities, and reward students who excel. Grading systems may involve a single grade or multigrades. It is vital that grades are awarded fairly as they can have considerable influence on students' futures. Being fair includes using a wide variety of assignments to measure achievement. Grades may be supplemented with checklists and narratives to give a more complex and complete summative evaluation of student achievement. Having students work in cooperative groups adds further opportunity to measure aspects of students' learning and assign grades in a variety of ways.

LOOKING FORWARD

There is an old story about 12 men in a lifeboat. One of the men announces that he has decided to bore a series of holes in the bottom of the boat. "You can't do that," the other 11 men cry. "Why not?" the man answers. "I've divided the boat into 12 equal

parts. Each of us has part of the boat. We can do anything to our part of the boat we want to. I've decided to drill holes in the bottom of my part. You do anything you want with your part. It's your right!" Although many people see the world in these terms, assessment does not work that way. Assessment is a community responsibility involving everyone in the classroom and school.

At the end of this book you may be at a new beginning. Years of experience are needed to gain real expertise in (a) integrating the assessment procedures into instruction and (b) capitalizing on the strengths of cooperative learning groups to help you do so. Involving students in the assessment process eventually results in more sophisticated students who can help you continuously improve the assessment process. For too long adults have had the sole proprietorship of assessment. The highest level of Bloom's Taxonomy (1976) is generating, holding, and applying a set of internal and external criteria. It is time that much of the responsibility for assessment is shared with students. Working jointly with students creates a learning community in which students' involvement in the assessment process enhances all aspects of learning and instruction.