

# Informal Assessment

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## KEY TERMS

- assessment center
- assessment
- authentic assessment
- classroom-based measures
- clinical selection
- cost sampling
- criterion-referenced
- direct tests
- informal tests center
- informal tests
- normative or standardized testing
- portfolio
- performance measures
- portfolio assessment
- student-centered portfolio assessment
- teacher-centered portfolio assessment
- testing
- time sampling
- work product assessment

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Ms. Debra Tanori, a fifth grade teacher, sits at her desk with a pensive look. Her attention is directed to the latest scores of her class on the state recognized instrument used to determine annual academic performance ratings. Content of the test instrument has been coded to the state standards. Ms. Tanori taught to the standards and even supplemented with additional complementary information. Ms. Tanori is both pleased and perplexed at the ranking of her students. Most of her students have placed at or above expected standards, yet a small number fell below expected standards. She thought everyone was making excellent progress, but the scores say otherwise. Ms. Tanori pauses for a few minutes to recall how she had determined that progress was satisfactory. Hmm...maybe the weekly quizzes and end of unit project evaluations were not specific enough. Were her evaluations able to identify which students were not only learning the new information, but also remembering this knowledge over time? What would happen if the evaluation was more frequent and also included information previously learned? Ms. Tanori knew she would not create additional formal evaluations, but instead would rely on gathering information from daily classwork. But would she have the time and energy to collect more information on all the students? No, she thought with a resounding mental hand slap, but did she need to keep such detailed data on all her students for every behavior? No, of course not, she thought as her mood lightened. For the majority of her students, her current system worked quite well. Ms. Tanori realized that only a small group of students would need the intense kind of classroom evaluation to ensure that progress was continuous and learning maintained. With the thought of even more learning accompanying higher scores dancing in her head, Ms. Tanori began the task of developing some simple additional record keeping sheets to be used only with those children who seemed to be at the low end of performance in her class. Bring on the state evaluation tool, thought Ms. Tanori, and I'll show you some children whose performance will glow like a guiding light reflecting understanding of classroom curriculum.

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Analysis of a student's daily performance is the best source of information for identifying the content each student needs to profit socially and academically in school. Linking evaluation of the student's performance with various teaching strategies can provide the evidence needed to determine the effectiveness of instruction in inclusion settings.

The purpose of this chapter is to analyze the meaning of informal assessment and to illustrate how such assessments guide teachers to provide the most appropriate education for children with special needs in inclusion settings. It is important

to demystify informal assessment. Informal assessment occurs in every interaction in subtle ways, most often unconsciously. Some informal tests are more formalized, more intentional, and very specific.

Instructional materials and methods found in books on teaching the basic skills in reading, writing, and arithmetic, as well as content areas like social studies and science, stretch out like cyberspace highway maps. Which road should a teacher take? Can all of us fit into one mode of transportation and successfully arrive at the same destination? Do all of us need to be in the same educational place at the same time?

When taking a road trip, all along the journey we see and evaluate the countryside, the rest stops, highway markers, scenery, other cars, and people. Based on our focus, we pay closer attention to some things and give little note to others. Informal assessment is like that. Inclusion teachers need the skills to monitor, to see events in passing, and to be able to stop and scrutinize a situation or a youngster very closely.

Inclusion teachers need to move from a wide-angle view of all students in the United States to a microscopic view of each individual child in their classroom. Formal or normative tests (i.e. those based on the bell curve) give an overview—that full U.S. roadmap—and show how one state fits into the picture. Informal testing provides the detailed directions to reach the individual student.

All students have overlapping as well as unique strengths and needs—children classified as eligible for special education included. 100 students can be at 100 different places in learning. We place these students into clusters and groups: students who are gifted, students who are average in height, and so forth. We cluster or classify groups for ease of discussion and measurement.

The emphasis in normative testing is on group description. Group data are only meaningful as a starting or screening point for developing instruction. They give a general idea about skill strengths compared to the population of students who took the formal measure. Formal testing informs us about groups, about programs, about trends. When it is important to understand a classroom or a specific child, we turn to informal assessment. So when designing programs of instruction (i.e., an IEP), we want to go back into those clusters and get a much closer look at the scores of a particular student. The score taken from a normative measure gives us a starting point for more specific evaluation. In other words, formal testing gives us a reference point.

Personal decisions about instruction in the general education classroom and the learning objectives for a specific student come through informal assessment. The best source of evaluation always involves “asking” the student through informal assessment. Informal assessment asks the student to provide information for educational and social learning in a variety of ways. Informal assessment is colored by teacher and student experiences, emotions, momentary needs, level of fatigue, and a combination of current personal needs.

As an example, Mark acts up as soon as his teacher asks his students to get out reading material. Mr. Randal, the teacher, wonders if Mark cannot settle down because reading is held after recess. He tries several interventions with limited

success. Mr. Randal watches the young man and finally develops a question: Is it possible that Mark is experiencing difficulty in reading?

The student records do not specify that Mark has difficulty reading, but his standardized scores are quite low. Standardized scores are global and give general information, so Mark's teacher feels it is important to do some individual observing and screening to determine reading and comprehension level. Mr. Randal begins with a reading interest inventory, asking Mark if he likes to read, what books he reads, and how often he chooses to read without a prompt. The responses to the reading inventory are specific, individual-driven information.

The global tests provide general information about performance. For example, they indicate information about average intelligence, note a short attention span, raise questions about short-term memory, and identify math and reading scores that are at least three levels lower than expected. Thus, global information begins to paint a picture of a child's performance, but only in large, sweeping terms.

The global information provided by many normative tests is only one piece of the educational picture. Informal assessment completes the picture. Formal tests are given only once or twice during the academic year. Informal tests, on the other hand, are teacher-made assessments and may occur any time during the day, week, month, and school year, as deemed appropriate and feasible.

Informal assessments may include, but are not limited to, paper-and-pencil tests, observation of work products under various situations, and insights gathered through dialogues between student and teacher. Informal assessment requires getting to know the youngster, building rapport, observing, gathering work samples, and collecting anecdotal behaviors to accumulate meaningful data for making instructional decisions.

Most often, informal assessment means giving the student specific assignments and watching his or her response and rate of success. Facts gathered from such information lead to hunches. That is, the teacher looks at all the accumulated facts and begins to develop a picture of how instruction is working for a specific student.

Informal assessments help the teacher work objectively at the same time that instruction and information gathering are personalized. Those two pieces, the objectivity of looking at what the student can do and is doing mixed with the subjectivity of how the student is acting and seems to be feeling, provide a wide array of information that allows the teacher to be more accurate in meeting student needs and developing instructional programs. Some of the information will be discrete, or countable, but other sources of information will be impressions, fuzzy places where two facts don't quite add up to the scores of the student's performance.

Ms. Patrick, for example, notices that Van does not always follow instructions. She watches Van and notices that he likes to be cooperative and spends a lot of time watching her and paying close attention to instruction. What could be going on with Van? As Ms. Patrick observes more closely, she begins to wonder if Van might have a hearing loss and talks to the speech-language pathologist at the school. The specialist tells Ms. Patrick that Van has a history of inner-ear infections that explain the times when he does not seem to hear sounds and

words. Ms. Patrick's impressions were key in helping to provide accommodations for Van.

Informal assessment occurs daily and requires monitoring and adjusting. Mr. Lindam is working in the junior high for the first time. Before Jake comes to class, the best information Mr. Lindam has on him is that he is a 13-year-old male with difficulty reading. Once Jake is in the class, however, informal assessment—day-to-day involvement, talking with the student and trying different ways of introducing information and learning—provides a rich sense of who Jake is and what he can learn. Such informal assessment also helps Mr. Lindam become excited about the challenge of getting Jake more involved in learning.

Mr. Lindam starts a unit on transportation and finds that Jake is deeply involved in motocross. He gives him the option of focusing his reading on this favorite topic. Mr. Lindam asks students to read an article on the Internet. Jake surfs the Net instead. Mr. Lindam realizes that Jake is having difficulty reading the screen, so he gives him a processing program that reads the screen for him. Mr. Lindam also notices that Jake has difficulty with spelling and grammar, so he provides a word program with a spell-checker and grammar-checker.

As Jake begins to work independently and achieves some success, both Mr. Lindam and Jake experience a sense of accomplishment. Mr. Lindam's high expectations and willingness to monitor Jake's progress, adjusting tasks and tools as needed, meant formal and informal assessment made a difference for Jake.

### **Assessing Student Progress**

Inclusion teachers use many methods to find out what students are doing in the classroom. *Testing* and *assessment* are two of the terms that are useful when talking about evaluation. Testing determines student ability to complete certain tasks or demonstrate mastery of skills or content knowledge (Overton, 2005). Assessment is the collection of information to identify what does and does not work so teachers can make effective educational decisions (Salvia & Ysseldyke, 2001). Assessment happens every day, all day long. An inclusion teacher watches students as they work on assignments. The teacher can see levels of concentration, times work stops, the ease of work, or the errors occurring as students complete their material.

Testing is usually more formal than day-to-day informal assessment. On a regular basis, the inclusion teacher probes for students' level of knowledge to be certain an acceptable level of competence is reached. Testing is often established as part of the process of teaching. Goals are set, and objectives are established. The objectives list times and ways to establish successful completion before going on to new objectives. Checking for success becomes equated with testing.

A well-written formalized objective includes how well the concepts will be learned and evaluated. This is a typical pattern for a goal and objective. The goal for Ms. Patrick, for example, is to teach the concepts in using fractions. When learning fractions, it is important to be able to identify proper fractions from improper fractions. The objective might be: "Given a quiz with ten fractions,

Lucy will be able to successfully identify all improper fractions." In this quiz, the teacher determines Lucy's ability to distinguish fractions.

- Goal: Teach the concepts in using fractions
- Objective: When given a quiz with 10 fractions, students will be able to successfully identify all improper fractions
- Test: Quiz with 10 fractions, some improper, some proper

What if the teacher wants to find out how a student is doing before the quiz on Friday? This is a great time for informal assessment. One way to do that is to look at how students are working. Ms. Patrick can observe students who are off task or not enthusiastic about the assignment. These are observations or impressions suggesting that the task and student ability may not match. However, the behavior can also mean that the student does not have a pencil, that the work is a repeat of ideas the student already comprehends or that the student has a headache.

Ms. Patrick can walk to Brock and ask him to share his reasoning process. Student self-talk can tell the teacher a lot about how a student is thinking about the math problem and working for a solution. This kind of information is easy to gather as teachers walk around the classroom, asking students to share their ideas and thoughts. It is also a *formative* type of assessment. Such information helps inclusion teachers formulate teaching expertise for individual students.

Informal assessment includes the practice of walking around during seat-work. Mr. Lindam can spot-check daily work as it is occurring. If Jake is getting something wrong, more of the same work is not likely to meet his instructional needs. The informal assessment pinpoints the glitch in how Jake is using the information or the focusing process. By identifying the misconception, the teacher can adjust the assignment or find a different way to teach the missing concept and send Jake forward, succeeding at the task.

### Informal Assessment

So what is informal assessment? Why do teachers do it? Informal assessment is monitoring classwork in progress. It can be a checklist, it may include the use of a rubric to articulate and catch data, or it may be as simple as watching who is on task at 5-minute intervals. This "with-it-ness" is an integral part of successful instruction. That makes it an essential part of teacher program evaluation (i.e., checking to see that concepts are being learned).

Informal assessment can be a systematic gathering of data or sporadic and frequent probes. Informal assessment may include error analysis, checklists, samples of work, or student self-report. Effective teachers use continuous assessment of every sort while teaching (Arends, 2004; Messick, 1984).

Informal assessment is crucial to matching student needs with content. When it is integrated into the flow of the instructional work, informal assessment can accomplish the following:

- *Identify aspects of a lesson that need to be retaught.* Yesterday Ms. Jones introduced writing dialogue to her class. She planned to have students



write dialogue today. She explained the project of using two characters to talk to one another. In her example, she used Miss Kitty and Mr. Mouse. Then she divided the students into groups and gave them time to work on dialogues. Immediately, the noise level escalated. Frustrated, Ms. Jones started to call the class back to attention, but, instead, she decided to move around the room and find out what the chatter was about. By the third group, she knew that the students did not understand dialogue yet.

She called the class together and let them make finger puppets. Then, using the puppets, she helped students take turns coming up with things for the puppets to say while another partner recorded the words. In this case, informal assessment helped Ms. Jones recognize what was not working in her lesson strategies. Once she taught the missing pieces, the lesson was a great success.

- *Provide information about how fast to move forward.* Mr. Lantz started a unit on classifying animals. He had lesson plans laid out for three weeks of instruction. After giving his introduction, he asked the students to help him compare and contrast mammals and birds. The whole class enthusiastically joined in, and it was clear these fourth-graders knew how to use a Venn diagram and had studied animal classification before. In one session, nearly half the material had been presented with great success. Mr. Lantz realized he would need to add depth and speed to his plans.
- *Direct teachers to what kinds of added instruction might be necessary for students to succeed.* Mr. Lawrence was introducing long division to his class. He made the presentation, then began walking through the room as students tried the sample problems. They were not so simple for some youngsters. He realized quickly that about a third of his class did not know multiplication facts well enough to work effectively with even the simplest division problems. Before he could go into more complex steps in division, he would have to review subtraction and multiplication.

Informal assessment is also a great way to individualize instruction. The time spent with students helps the teacher meet individual needs and helps the class move forward with content. Informal assessment is an essential part of successful inclusion in the classroom (Wood, 2005).

Ms. Hayworth, for example, decided to introduce keyboard skills to her class. As she planned the unit, she thought about the developmental strengths and needs of her 8-year-olds. She knew that several students showed difficulty with small-muscle tasks. It would be helpful for them to have practice activities that strengthened hand-eye coordination. She smiled as she thought about Sophie. Her ability to compose stories had improved so much this year that her fingers could not keep pace with her thoughts. Keyboarding could help Sophie reduce the stress of using her awkward pencil grip and focus more on keeping her ideas flowing. Max and Jake would only try this if she



could find an engaging game. She would need at least three different kinds of typing programs for the class.

In this example, informal assessment is reflective and is part of planning the lesson. It is important to gather these information bits so lessons can be successful from the beginning. Some might argue that the Internet is full of good lesson plans, so all a teacher needs to do is copy them and put them in place.

Ms. Hayworth knows better than to do that. She will have great success with her lesson in keyboarding because she matches the material she wants to teach with the abilities of her students. She realizes the great strength that comes from informal assessment, and she uses it to plan and implement her lessons and to evaluate her performance as a teacher and the learning in her classroom.

Informal assessment meets the following teaching objectives:

- Illuminates connection points so the teacher can monitor learning and adjust instruction to match student readiness to learn
- Finds or develop successful strategies for teaching each youth
- Serves the whole child
- Meets ethical obligations to the profession
- Individualizes student programs of study
- Fulfills the law

Informal assessment is a student's and a teacher's best academic friend.

### **Standardized Testing**

Normative or standardized testing is also crucial. It provides the standard for comparing students. Most states mandate that students be tested and that scores be provided to parents, the state, and the federal government. These mandates form a significant part of Goals 2000 and the No Child Left Behind (NCLB) legislation and serve to provide general information about how a specific student compares with other students. But it is not the ultimate purpose of this testing. The testing provides summative information about school programs. It alerts districts, states, and the federal education department about general trends and weaknesses in the way we educate youth. It also provides a database for making informed guesses about poverty, levels of education, at-risk factors, and the relationships between funding and privatization of education, as well as new reading, writing, and math standards and processes.

Some of these uses are appropriate. When the scores are used in broad ways and give insights into programs, promising practices, and correlations between scoring success and the indicators being monitored the use is important and valuable.

Teachers need to understand this. Tests do not need to be demonized or testing practices halted. The cost of developing standardized tests is substantial. Representative samples of many populations of students, including varied demographic groups and special groups of students, must participate in the test to establish accurate norms for comparison. To get age or grade norms, thousands of youngsters must be tested with rigorous care, the scores compiled, and the

information evaluated. This entire process must be completed before the test can be used correctly to give an accurate assessment score.

In summary, normed or standardized tests can help educators and parents make informed decisions about how a school is performing, how much children are learning, and how well a community is educating its children. They provide important indicators of how one student is doing when compared to peers who took the same test under similar conditions. However, the scores and indicators must be used properly, applied for the appropriate purposes, and explained thoroughly to parents.

Several words about testing help clarify what tests tell us.

Reliability	Validity	Standardized
Criterion-referenced test	Benchmark	National norms
Standard scores	IQ test	Achievement test
NCE – National curve equivalent	Percentiles	

The meaning of each of these terms will be presented in context rather than as a specific definition.

### Classroom Standards

Each standardized test is developed to measure specific content or behaviors. If it is a good test, it is constructed so it does a good job of measuring. This is also true of informal evaluation. A good math test must do a good job of measuring a student's ability to do math. If it does, we say it is a *valid* test.

School grades stand for how much students have learned and how well they have met the teacher's expectations. Some grades represent what they know in a fair way, and some do not. Some teachers are good at grading and measuring progress. Other teachers are not very good at setting up a grading system, so the grades may not tell students, parents, or teachers very much. Here is an example.

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Lucy's music teacher gives everyone an **S** or a **U**. Everyone gets an **S** unless the teacher becomes distressed with behavior problems. An **S** in music means Lucy is behaving. It does not mean that she can sing or that she likes music. Bernard's teacher appreciates music and is clear about what he wants students to gain in his class. This teacher also gives an **S** for satisfactory and **U** for unsatisfactory. But for this teacher, music represents a lot of skills and information. To get an **S**, Bernard must: (a) attend class, (b) sing during group chorus, (c) turn in a paper on a composer, and (d) successfully complete 10 lessons on music theory.

This provides a good example of grading. We are measuring and reporting student progress. Lucy and Bernard both get an **S** in music. It is the same mark or grade, but it does not mean the same thing.

	Lucy	Bernard
Grade	S	S
Grade meaning	I am good during music.	I attend class regularly. I sing in chorus. I wrote a paper. I learned music theory.

A grade or a score most often reflects what a teacher decides to measure or an entity decides to report. It is crucial to be certain that the test is valid and that the use of the scores is also valid. When a teacher gets a report, it is vital to determine its value, usefulness, and ability to measure what it reports.

Grades or normative data are often idealized. Teachers, parents, and children sometimes decide they mean something and then act as though they measure what they want them to measure. It does not make it true, but it gives people a sense of reassurance. Some of the debate about national tests involves this unwarranted idealization. Nevertheless, standardized tests are useful when utilized and interpreted correctly.

### Anecdotal Records

An *anecdotal record* is “a written record kept in a positive tone of a child’s progress based on milestones particular to that child’s social, emotional, physical, aesthetic, and cognitive development,” notes the American Association of School Administrators (1992, p. 21). The teacher observes and records a student’s behaviors and actions as they occur. An anecdotal record is usually written as soon as possible after witnessing or hearing about an incident so that all important details can be included.

The notes are informal and based on vignettes of specific occurrences or a checklist with space for writing comments. An anecdotal record most often consists of the following (see Figure 5.1):

- A string of single anecdotes, each limited to a single incident
- A description of the situation in which the incident occurs so that the meaning of the behavior can be understood
- Factual, noninferential descriptions of the observed or reported incidents
- A separate section for describing one’s interpretation of or feelings about the anecdote

### Parent Conferences

Parents are a great source of information for getting to know a child. Many educators and administrators believe that an adversarial relationship exists between parents and education. A few parents are antagonistic toward their children’s schools, but most are motivated by a wish to see their child succeed and a desire

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DATE:

PLACE:

TIME:

NAME OF OBSERVER:

DESCRIPTION OF THE INCIDENT:

INTERPRETATION:

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**Figure 5.1** Sample Anecdotal Record Form

to look competent and caring. Here are some tips for getting the most out of a discussion with parents:

- Establish a friendly, open rapport
- Project respect and honor for the parent
- Ask good questions
- Listen carefully while parents talk
- Listen for patterns of thought
- Probe the parent for an explanation of what the child is doing
- Find the real story
- Ask for reflection (e.g., What do you make of that?)
- Give parents a chance to share how they view the child
- Move toward long-term goals or dreams for the child

### **Student Conferences**

At the beginning of the conference, it is vital to assess the student's developmental level and to frame the interview so that age-appropriate interview techniques are used. Teachers should not confuse chronological age with normal developmental stages. A child's developmental age may not match her chronological age.

Integrate knowledge of child development with the child's sense of time, temperament, and language abilities. Some of this information may be obtained through interviews with the parents, questionnaires completed by the parents, consultations with previous teachers, or personal observations.

What the child says and does can best be interpreted by understanding the child's developing cognitive abilities and emotional state of mind. When formulating questions to ask a youngster, it is important that the questions be appropriate for his or her developmental level.

The teacher-led questioning may develop into a dialogue and then a true conference if deep listening occurs on the part of the teacher. It is vital to be ready to "hear" what the child is saying and to share control of the discussion as the student warms up and the rapport increases.

#### *Steps in Good Conferencing*

1. Begin the conference by establishing rapport and giving students time to talk about their attitudes toward school or their feelings about their personal level of competence. Teachers should not correct shared feelings; it is like telling a person he or she is wrong about a choice of a favorite color or food.
2. Give the student a forum for sharing current successes—"strut their stuff" time.
3. Ask the student to provide the next challenge. If the student is uncertain about the next step, offer a problem that dovetails with the current success and a challenging new skill.
4. Allow the student to attempt to solve the new challenge using personal skills, and make note of the strategies used and any verbalization of the issues involved in solving the challenge.
5. Jointly set a goal that moves the student into new challenges, and offer guidance on strategies to be employed in learning new skills.
6. Jointly develop an assessment plan.

As possible, allow students to work together in pairs to conference and build new goals, and, eventually, provide a weekly time for these strategy sessions to take place. Once a week, briefly review student progress; reviews can be done in about 60 seconds while students are setting goals or working independently.

#### **Observation as an Informal Assessment Skill**

Observations of children are tools for adjusting the curriculum and planning learning opportunities to meet children's individual needs. Observations also help teachers understand the different levels of mastery: what the student *has learned*, is *ready now* to learn, will be *ready soon* to learn, and will be *ready later* to learn. This information becomes the child's individual learning path, or education plan.

It is vital to observe and record students on a continuous basis. Observing is natural and enjoyable. Observation is also the key for deciding which learning

activities will most benefit children. Observation of children can occur at any time and in any place. Children can be observed throughout the day as a natural part of what a teacher does. Children are always doing and learning.

Know what to look for: A teacher should have a good sense of the progression of capabilities for each area of development to be observed. When observers know what comes before and what comes next in development, they have an accurate focus.

Children often display capabilities in one setting that may not be readily observed in another. For example, a child may be highly verbal at home and talk very little at school. Insights provided by parents and other teachers and gained during library time, lunch, and recess can assist in adjusting curriculum to more closely meet the needs of individual students.

Teachers can take advantage of moments to observe by having a clear focus. Having a clear focus includes knowing what capabilities need to be observed, which children will be observed, and where observation will occur. Good questions to help with focus include: "What do I want to observe?" "Which children will I be observing?" "Where will I observe?" "What strategy or method will I use to remember what I observed?"

To get the most out of observation, define the purposes served by observations. Purposes may be to develop a weekly activity plan, determine how to individualize, or to revise an activity. Things to consider include, "What do I hope to learn from my observations?" and "How will I use the information I have learned?"

Use narratives or anecdotal notes to help describe what children do and how they do it. These methods are also very useful for recording concerns, goals, plans, and successes. When using narratives/anecdotes, remember to be accurate and objective.

As the student moves about in the learning community, use time and event sampling. There are occasions when knowledge of the frequency of a behavior is important (e.g., how often the same child is on task, chatting, or sharing). Such information can be useful for planning interventions to increase or decrease particular behaviors.

Use *time sampling* to record behavior over a short period of time.

- Decide which behaviors to observe.
- Decide how often to record the behavior, and stick with the time period. It may be necessary to get a substitute for a day to do this well.
- Observe and record the behaviors using tally marks.

Use *event sampling* to record social interactions.

- Decide which interactions to observe.
- When the event occurs, describe it.
- Include what is occurring, what happened before, and what happened after.
- Record how long the event lasted and anything that was said.

Advice from professionals:

- Increase your patience in order to slow down and watch.
- Pay close attention to your physical surroundings: who, what, when, where, and how.
- Be aware of people's reactions, emotions, and motivations.
- Ask questions that can be answered through observing.
- Be yourself.
- Observe with an optimistic curiosity.
- Be ethical.

### Reflection

The ability to reflect critically about experience and observations is an acquired set of skills. Reflection involves integrating knowledge gained from experience with knowledge gained by watching. Critical reflection includes identifying the assumptions governing others' actions, questioning the meaning of such assumptions, and developing a series of ideas about what is part of the underlying reason for the actions. Part of the critical reflective process is to challenge the first and easiest idea that comes to mind and to look empathically at what needs a child may be working to meet.

As Maslow (1968) noted, student actions are motivated by needs and drives, culturally learned behaviors, and learned or modeled actions. Through the process of critical reflection, teachers come to interpret and create understanding of actions from observing and openly seeking to understand and empathize. Critical reflection blends learning through experience with theoretical and technical learning to form new knowledge constructions and new behaviors or insights.

### Understanding Students

Informal assessment is based on a philosophy. This next section provides an opportunity to think about the strengths of informal assessment when the focus of the classroom includes student interests and needs. Students are people first, young and inexperienced at learning in a school setting. People begin to learn, to think, to make connections, and to change their actions to get their needs met in their earliest moments. People also love to learn. By the time a child comes to school, he or she has learned to walk, to talk, to control body functions, and to perform as a human being.

Children are already well-versed in learning when they enter school. It is useful to think of school as a place for them to formalize learning. At the same time, the child has a need to be understood, feel wanted, and experience a sense of safety. When that is ignored, children can be resilient and find a way to learn, but it is not the optimal process for achieving the highest level of education.

Students also have unique ways of learning and remembering information. The idea of an average youngster is a construction. No one wants to be average or feel unimportant all day every day. Many practices in schools assume that mass



instruction is an effective and efficient way to pass on information, based on the idea of an average youngster. Because of class size and the high number of students to each teacher, the practice is widespread.

Still, to be fully successful, teachers and students must work together to recognize what is needed for each student to be successful at learning.

Beginning teachers should remember the following:

1. Most philosophies and the newest gene studies suggest that students have abilities, strengths, and needs that are hard-wired.
2. All students have a variety of ways to learn and acquire information.
3. All students have some ways of learning that are not effective for them. Lecture, presentations, and writing on the board while students take notes are some of the most frequently used and least effective learning techniques for youngsters.
4. All students already have internal dialogues, worldviews, and self-views that affect how they learn and what they learn.
5. IDEA (2005) identifies a large number of specific characteristics that can put a child's learning at risk if he or she is not provided extra services. Schools have a mandate to determine student need and provide necessary extra services.
6. Students may need help adapting their abilities to the expectations of the educational system.
7. All students have special needs. It is important to remember that every student benefits from an educational process that helps students make adaptations in areas where they have the least potential and expertise.
8. Students are ready to learn concepts at different times. Being 6 or 8 years old does not signal readiness to learn to read or write. Instead, it is the time when most teachers provide strong instruction and have high expectations for success. Many of those expectations are underscored by formal testing.
9. Students become ready to learn by reaching certain developmental milestones and through appropriate, well-timed introduction of concepts.

In summary, assessment is a critical piece of successful teaching. Wise utilization of results means finding out how a youngster learns and then doing what it takes for that youth to learn. Assessment means ongoing monitoring for every student in every class all day, every day of the school year. Informal assessment is hard work and takes energy and determination. Informal assessment requires insight, dedication, and a desire to know what the student knows, even when it means redesigning the teacher's work with the child.

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### **Connections Between Learning and Teaching**

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Students have many ways of learning. Common sense and research tell us that we do not all learn in the same way, find interest in the same things, or approach teaching in the same way.

At present, our system of education sends out two conflicting messages:

- The individual really matters.
- and*
- We teach subjects, not students.

These two incongruities are heightened with standardized testing. By the time a student gets into high school, the gap between what an individual student is able to learn and what that student had better be learning can be quite a chasm. The situation is made more difficult by pressures to use one set of scores to decide who is teaching and learning and the pressure for everyone to have a diploma to be considered for employment. For a student who does not learn in the typical way, trying to access knowledge can feel like being a piece of chum tossed to a pack of hungry sharks.

Since the educational climate is not likely to change, we need to be the professionals who find a way to serve our students. We cannot coax students to jump off the cliff without giving them the skills to succeed. At the same time, we cannot leave them teetering on the edge, unable to dive in and find success. Every student is precious, so it makes no sense to take a "survival of the fittest" stance. The cost of failure is high—high for the student, the family, the community, and our own sense of hopelessness and inadequacy.

#### *So what can we do?*

When inclusion teachers find something a student cannot do, they must regard it as a challenge rather than a disability. They must support students while preparing them. If a student has difficulty learning to read, educators teach coping, shortcuts, and memory tricks, and find pleasant ways to maintain interest while helping the student move through the steps that will make meaning of the symbols. They devise and instruct students in using available support systems and search for advances in assistive technology that help the student feel successful.

It may take several months of patience, tiny steps forward, careful nurturing, and support. After all, literacy skills are very complex. Some children intuitively combine those steps and are able to read or perform writing processes with little support. Teachers' real value lies in their ability to make meaningful progress with those who are not intuitive learners, who need just the right tiny step at just the right moment, repeated until the student is ready for the next "just right" step.

If a student is not able to learn math, inclusion teachers must utilize calculators, computers, peers, manipulatives, and daily tasks that include logic, patterns, and numeration until the child gains a sense of comfort. They then combine those comfortable operations with the conceptual framework that allows the student to have that flash of insight.

Short attention span? Inclusion teachers must help the student find ways to focus more efficiently. Watch for the time in the day when the child is most able to focus and then use that time to lengthen attention from a couple of minutes to

3. Then teach the youngster to focus for those 3 minutes, repeated by off-task for 3 minutes, and then 3 minutes of sustained attention again. Suddenly, instead of a child with a 2-minute focus, there is a youngster who can intentionally recognize and deal with loss of focus. As the child strings 3-minute segments together, a student with very little focus becomes a student who is focused half the time. That is a meaningful change that will support learning.

If a student has difficulty learning as most teachers teach, if entrance exams will be failed and doors closed because the student does not know how to learn, educators must teach the student how to find and use power tools. That is the ultimate message of NCLB or P.L. 107-110. Expedite learning for students who have previously been thwarted, thus utilizing the true gift of teaching.

Informal testing and screening provide essential information to the teacher. The skills emerge with time and attention to students. The ability to care about, to notice, and to ask questions about students and why they are learning or not learning opens the way for successful informal assessment.

There are many fine assessments available as well. They are accessible on the Internet and in methods texts, and often can be purchased with accompanying software to make it easier to score and record findings.

It takes time to acquire proficiency in screening, and it can take a year or two for a new teacher to become organized enough to consistently and methodically make use of informal assessment. It is a skill that emerges and strengthens over time. It is invaluable because it supports and builds relationship between teachers and students. It focuses the attention on student success and progress. It also informs the teacher of special ways to help students find success. Screening and informal assessment are crucial to successful teaching.

### **Forms of Informal Assessment**

Informal assessment takes many forms. For some authors (Salvia & Ysseldyke, 2007) informal assessment closely resembles qualitative and mastery-based evaluations of student work. An example of this is the portfolio. Work product assessment can include samples of student assignments, skill tests, projects, and original artwork. A number of recent assessment alternatives supplement objective scores with more personalized assessments. These include Meyer's Authentic Assessment (1992), Lidz's Dynamic Assessment (1991), judgment-based assessment (Bagnato & Neisworth, 1990), and curriculum-based assessment (Salvia & Hughes, 1990). Informal assessment can be used to evaluate student progress and capture evidence with respect to student quality of work.

Informal assessment can also provide evidence that helps teachers get to know the student and how learning takes place. Informal assessment can help a teacher see learning stress points, recognize motivational and behavioral patterns, and get a sense of student ability level. Informal assessment can be as simple as watching the way a student turns on a computer and as complex as systematically observing a youngster.

Table

A

P

E

P

S

I

Informal assessment is ideal for picking up social cues and socialization patterns. Informal assessment is a critical part of building relationships with youngsters. Watching youngsters play and noting interaction patterns can be an effective tool for recognizing friction points and boundary issues that get in the way of appropriate classroom actions. The dedicated teacher makes good use of careful, thoughtful, well-developed assessment and intelligent reflection. The process of informal assessment can also help the teacher and student build and strengthen mutual regard as it informs both of necessary steps to enhance learning.

### Developing the Whole Student

Part of the special education mandate asks teachers to understand what normal child development looks like so they can accurately recognize developmental delays. Understanding normal development is a positive and proactive way to assess youngsters, see strengths and patterns, and support growth sequentially. It is surprising how much of a child's behavior can be understood by learning about the different ages and stages of normal development. For ease of presentation and to provide a mnemonic for sorting through and accommodating the vast wealth of developmental concepts, the material has evolved into a *PEPSI* model (see Table 5.1). The letters stand for *physical, emotional, philosophical, social* and *intellectual* development.

PEPSI refers to the five areas of progressive and continuous changes in the human essence that make up a developmental perspective of growth. These five distinct areas of development form a "hands-on" device for understanding youth and recognizing patterns that contribute to actions and behavior. They provide a frame of reference for looking at an individual and a sense of continuity about normal and predictable changes in children over time.

**Table 5.1** PEPSI: A mnemonic for developmental concepts

Area of Development	Authority Cited
P - Physical	Gessell, Ilg, Ames
E - Emotional	Erik Erikson, ego psychology
P - Philosophical or moral	Kohlberg, Piaget
S - Social	Kagan, Langer, Moss, Mussen, social psychology
I - Intellectual or cognitive	Piaget, Inhelder, Vygotsky

The following example shows the value of informal assessment of a youth's developmental stages.

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The teacher, Mr. Clark, talks with Mr. and Mrs. Albin, who have come in to ask for help with their 13-year-old son, Jason. The parents are concerned about a number of changes in their son's behavior patterns that seem to have started "overnight." They feel that Jason is not doing well in school and that he overreacts to almost every situation. They have talked with a neighbor, who suggested that they follow up on these worries by seeking help from a child therapist. The parents were upset at this suggestion and decided to find out how the teacher perceives Jason.

Mr. Clark talks with the parents about his perception of the lies, whining, lethargy, and obstinacy. The teacher points out that the behaviors are not that uncommon among the rest of the middle school students. Mr. Clark tells Mr. and Mrs. Albin that Jason has a very special gift in cartooning, but his behaviors are not always accepted by agemates in his class. The parents have begun to worry about drugs and suicide. They express a belief that their son fits the classic symptom list flashed on television, and they want to be reassured that their son's music listening habits are not indicative of such problems.

They add that their son has become moody and taciturn and seems to be having bad dreams at night. They inquire about occurrences at school that might be causing these things. Mr. Clark begins to see that many of these concerns fit the typical developmental profile for early adolescents. The parents then explain the event that precipitated the search for answers about Jason. It occurred a week earlier, when he burst out that he hated their rules, hated being told what to do, and thought he must be adopted because the whole family was mean to him. He threatened to run away from home.

---

The teacher's first step is to seek additional information from the parents. During the interview, which could be conducted with or without Jason, Mr. Clark will get a list of the concerns and also ask for instances of positive behavior. He will work to get a sense of how radical the differences are between the acceptable earlier behaviors and the current concerns. It is important to rule out illnesses or any catastrophic changes in the family. It is surprising how often a parent sees an event as unimportant, while a child finds it devastating.

In such a situation, it may be helpful to

- ask for a family history,
- inquire if either parent feels that the student is behaving as he or she did as an early adolescent,
- determine if some of the frustration is being fueled by significant others (in this case other teachers in the middle school) voicing new disapproval of the teen, and
- talk with the youngster and discuss pertinent issues.

As a next step, the teacher compares the list of behaviors to the age charts and the stage charts for normal development. It is usually easiest to lay out the charts for the student's chronological age and the levels on either side. Thus, initially, Mr. Clark pulls out the charts (three of them in this example) for ages 12, early adolescence, and late adolescence. As comparisons are made, it becomes clear that many areas are uncertain or unknown.

It is impossible in an interview and an informal observation session to gather enough information to make a definite decision. Teachers do not conduct a PEPSI to form a diagnosis or label. There may be an opportunity to call the parents and discuss some of the questions that arise. The same questions might also be broached with a previous teacher.

This is an initial screening. It is a time to look for impressions, establish a starting point, and become familiar with a youngster rather than looking for a label or diagnosis.

Because Mr. Clark is a caring professional, he will assist the parents in their quest for answers. As the teacher of 90 students, Mr. Clark could not do this extensive work-up on every child in the middle school. However, by giving the parents support and getting to know Jason better, he is developing trust and a relationship. Mr. Clark will continue to learn about each student in the class over time. Although he will not do a PEPSI for each youth, he will work toward accomplishing a PEPSI on students who seem to be having difficulty.

As Mr. Clark gathers data about Jason, he gets a sense that many of the concerns can be addressed by assisting the parents in recognizing a positive developmental occurrence. As Brazelton (1983) noted, typically a disorganization or disequilibrium occurs in children just as they begin to take on a new level of behaviors.

This often confuses and upsets adults. After several months of coping with behavior sets, the parents or teacher feels the problems are stabilized. They know what to expect, and the child has become equilibrated with the last set of new behaviors. As a new growth spurt begins, there is a typical destabilization. There may be a sense of futility from caregivers: "Last year we worked on lying and getting homework done on time. We made great progress and he had completely stopped lying. Now, all of a sudden we're back to lying, but now he's sneaky and deceptive about it. And that's not all. He gets nasty and belligerent when he's caught. We're further behind than when we started."

In moving into the new developmental stage, many of the consolidated skills are disrupted, almost like a regression. However, this disorganization is actually a step forward, signaling that a new array of skills is on the way. But the immediate evidence does not reassure parents, and the behaviors may feel like the last straw for a teacher who has been investing so much in helping a youth. Often the time right after winter break is very difficult in the classroom because many of the students moved to a different developmental level through emotional growth that occurred during the break.

Another pointer that suggests advancing development is the sudden onset of change in behavior patterns with no other precipitating factors. As the charting for

Jason is laid out, many of the offending behaviors show up on the chart of the early adolescent. This is inconclusive. The PEPSI model was developed and is best used to assist in sorting through those things that are normal and those that are more anomalous.

Intervention may still be advisable. After all, the family is expressing a sense of frustration and pain. However, it can be approached from a belief that health is building, a "person is becoming ..." perspective. The milieu allows for more optimism, a little humor. "It came to pass, it didn't come to stay" can be asserted in amusement, "Well, Mr. and Mrs. Albini, unfortunately, your son Jason is acting his age."

It is possible, as well as desirable, to teach parents and caregivers positive ways to optimize the student's growth. It also alleviates a great deal of concern, grief, and guilt, freeing up energy for better coping, if the parents can be reassured that what is happening is normal and that a child's growth often signals that the parents are providing a good environment, since stability and security are vital links in allowing the child to move to new stages. It is helpful for the youngster, too, if the parents feel they can understand the normalcy in what the youngster does. This advice applies to educators as well. Sometimes teachers, too, need to step back and consolidate successes and see growth as fragmented and messy when they feel discouraged because their efforts and energy do not create the hoped for changes immediately, or bad days are mixed in liberally with baby steps forward.

It is possible, even likely, that the PEPSI charting will show areas where the youth is advanced or has strengths, as well as areas with apparent delays. These can be developed as part of the educational plan. In this sense, it might be possible for the parent to come to the teacher for help with the child's lying, and after the developmental charting, for the lying to become secondary and the family interaction to become the main area for work. If the PEPSI screening turns up a need for the parents to focus on improvement of relationship and communications in the family system, the teacher wisely refers the parents to appropriate community counseling and family services.

For Jason's parents, looking at their son's schoolwork and report card were not good clues to the real issues or cognitive capability, and that is frequently the case when a youth is viewed as being at risk. From Mr. Clark's perspective, Jason was no more disruptive or out of control than most 13-year-old students. By helping the family see that Jason was moving along a developmental continuum, Mr. Clark made a difference in Jason's family life and probably averted esteem issues for Jason.

Most youths who create disturbances in the classroom are manifesting developmental delays that create a sense of frustration for the teacher and for other students. By developing PEPSI charts, it is possible to begin to see common patterns. Seeing these patterns in turn helps the teacher to work with the student more effectively rather than seeing the student as dysfunctional.

Students who are unusually bright, advanced in cognitive and moral reasoning ability, frequently show social and emotional delays. Having learned to



work with adults, they may be lacking in effective social skills with other adolescents. In other cases, having thought alone and kept to themselves, they may be missing trust or interest in peers, which looks very much like emotional immaturity.

Understanding the potential for different types of advanced or delayed development assists the teacher in making sense of many student behaviors that previously were viewed with alarm. Recognizing and being able to explain unusual behavior patterns makes it easier to understand, accept, and then move the student forward in areas of delay. No one area of delay becomes overemphasized. More gifts are valued.

Some students have permanent developmental blocks. For instance, youngsters with severe cognitive disabilities are not just delayed; there are areas where they will never completely reach maturity. By understanding the pattern of intellectual delay that is paired with normal physical development, the teacher can work with the student at the appropriate intellectual level, fully understanding the futility of expecting the 15-year-old girl with Down syndrome, who is really more of a 4-year-old, to behave as a teen, while also recognizing how adult the child looks.

Looking at a diagram of a typical developmental array for a teen with Down syndrome clarifies how age-mates might misunderstand the mature woman body who skips down the street expressing delight, wonderment, and excitement about Dorothy and the Wizard of Oz. It provides a frame of reference as teachers work with her in mixed chorus when she cannot remember the lyrics. It builds better understanding and acceptance for peers who sit next to her at lunch while she giggles about her Twinkies and milk.

The PEPSI screening process can be learned in a brief period of time. The information base is well-established, reasonably objective, and well-researched. Use of the information is more subjective. As the educator practices the model, reliability will increase. The ability to recognize behavior patterns will become sharper with increased familiarity with the factors and dimensions of development. The PEPSI screening tool can be useful, even during the learning process. It is vital to appropriate utilization to recognize the basic assumptions inherent in the tool.

### **Philosophical Understandings About Developmental Screening**

1. The PEPSI assessment model is based on a humanistic philosophy, a belief in health and positive growth and maintains a human-centered focus.
2. It derives basic concepts from the research in developmental literature.
3. The screening procedure is informal, partially intuitive, and instructive, with outcome viewed as a starting point for assisting in recognizing patterns of behavior and general levels of human growth.
4. The PEPSI model is not intended as a set of criteria for labeling or diagnosing in any setting or with any student.
5. The PEPSI model is intended to be a flexible tool that can be adjusted to meet individual teacher needs.

6. Viewing the student through a PEPSI model may provide adult awareness of areas that can be strengthened and nourished in the youth.
7. Once a PEPSI is constructed for a student, a visible image of strengths, weaknesses, and areas of developmental progress may emerge that can assist in producing an individual growth plan that may be included in a student's portfolio.
8. PEPSI can be a self-help tool when taught to adolescent students to assist them in developing self-awareness.

In reading developmental charts, it is essential to remember that human development is nearly always sequential but it is not necessarily age-specific to any individual. Thus, the "norm" or general guidelines for 12-year-olds will be accurate for approximately 68% of children who are 12. The other 32% of the class will be beyond those guidelines or will not have reached them. Theoretically, with a class of 30 students and five differing areas of development, one or two students would be developmentally appropriate or "normal" across all levels and the other 28 students would probably fall above or below the guidelines in at least one area. Given this understanding of youngsters and their growth, the teacher, rather than labeling the student as abnormal, might set the goal for progress in the slower area and guide the youth to enjoy areas of strength. Safety, high expectations, and relationship are keys to optimal growth.

Once the teacher recognizes a developmental disparity, a goal can be generated to address growth. In addition, the teacher will be able to facilitate student

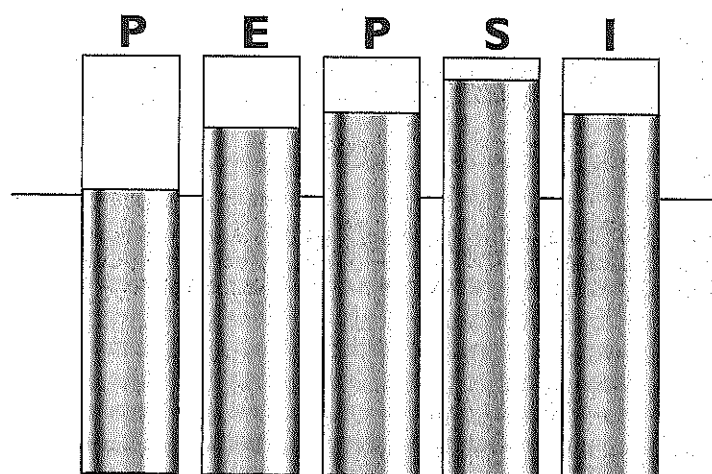


Figure 5.2 Sample PEPSI for Gifted

progress through increasing safety and structure in the classroom environment

Figure 5

when a youngster is working to improve skills or increase levels of development. Showing pleasure in strengths as well as focusing on concerns can enhance student energy. It is also useful to provide practice in missing skills, which would be likely to come next, according to the indications from the charting. Finally, the teacher who rewards close approximations rather than focusing on errors will assist the young person in developing at an optimal level.

### The Whole Person and Informal Assessment

Teachers are preparing youth for life, for entrance into society, for personhood, and must teach the whole person. The effective teacher does so by first recognizing the component parts of personhood, then learning the developmentally appropriate sequencing of the human growth. At that point teachers are in an excellent position to assist in optimizing the environment and energizing the youngster to take on the vital processes for enhancing individual development.

#### *Assisting Student Development*

By ascertaining a student's PEPSI, the teacher is able to see the child is pursuing a life journey that is developmental. Many times adults respond to childish antics with, "Act your age." Generally, the child is acting in an appropriate manner for the age and stage in which he or she is currently performing. The discomfort is due to the adult's lack of understanding that the child's behavior is most often purposive and not intentionally disruptive.

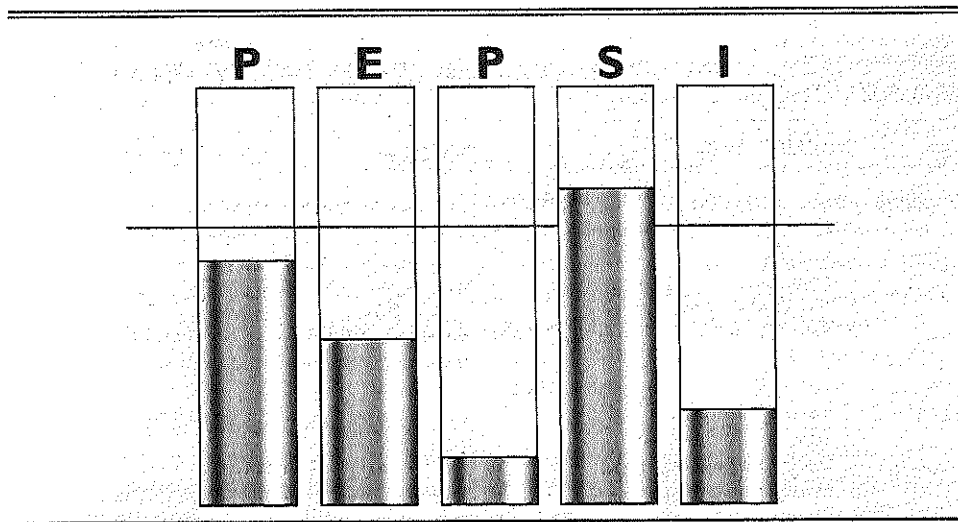


Figure 5.3 Sample PEPSI for Moderate MR

Recognizing the student's developmental steps and adult responses and behaviors facilitates development and fosters better understanding. The chart in Table 5.2 provides an overview of developmental tasks for children and the adult responses that facilitate completion of the developmental work.

Teachers need to add knowledge of other human factors as well to properly work with students: The nature and personality of children, social background, biological and psychological needs, levels of development, and capacity to learn contribute to better understanding.

The teacher looks to the whole person and works to synchronize the growth energy inherent in the student, as well as his or her special gifts, talents, traits, and abilities. The teacher assists the youngster in capitalizing on those parts of the course of study that harmonize with the developmental tasks at hand and the idiosyncratic potentials of each student. As the expert teacher combines understanding of the student's needs, developmental strengths and weaknesses, level of autonomous or heteronomous response, and learning needs and abilities, there is a deepening of ability to move the student forward, to attend to the youth as a loved one, to help the child accept personal responsibility to move forward.

Instead of engaging in power struggles or fruitless battles to get tasks accomplished, learning takes on a power of its own. The student, feeling understood, given a safe and secure environment, and empowered to fully utilize intrinsic motivation, accomplishes each day what cannot be done by push and shove in a year.

The teacher who gets to know each student will continue to learn about the nature of children and the human condition and will acquire excellent skills for building youth. The power implicit in democratic management should not be

**Table 5.2** Developmental Work

Age	Student's Task	Adult's Task
<b>K- Third</b>	<ol style="list-style-type: none"> <li>1. Social relations</li> <li>2. Carry ideas to completion</li> <li>3. Initiative</li> <li>4. Small-muscle coordination</li> <li>5. Concept of good and bad</li> <li>6. Fair "to me"</li> </ol>	<ul style="list-style-type: none"> <li>■ Teach about respect, kindness</li> <li>■ Assist with focus and structure</li> <li>■ Foster independence</li> <li>■ Provide creative outlets with detail work</li> <li>■ Accept skills</li> <li>■ Honor need for fairness but treat all with respect and provide for individual needs</li> </ul>
<b>4-6th</b>	<ol style="list-style-type: none"> <li>1. Peer relationships</li> <li>2. Sense of competition</li> <li>3. Desire to help others</li> <li>4. Strong sense of self</li> <li>5. Rules, privacy, and responsibility</li> <li>6. Success as a friend</li> <li>7. Reciprocity</li> </ol>	<ul style="list-style-type: none"> <li>■ Encourage self-worth through hobbies group memberships</li> <li>■ Use consistency and praise</li> <li>■ Show genuine generosity toward others</li> <li>■ Make allowances for need for wanting "fairness"</li> <li>■ Enhance active involvement</li> <li>■ Use natural consequences, logic</li> </ul>

underestimated. It can and will put joy back into the art of teaching and excitement and energy into the minds and hearts of youngsters allowed to work in those conditions.

The effective educator places emphasis on understanding each individual student and recognizing individual patterns of growth, and designs ways to reflect on the nature of people. By combining an awareness of human development patterns and specific patterns of individual students, the teacher can be alert to ways of implementing best practice in the classroom. Teachers use time-valued roles to energize the student to take on the processes for enhancing individual development and acceptance of special gifts and strengths as well as weaknesses. Teachers do that best when they believe in that vision and have built enough relationship with the student that he or she captures the magic in the vision and truly celebrates self.

Informal inventories like the PEPSI provide insights into student growth and learning patterns that lets teachers know what a youngster can do and areas of optimal growth. This may also illuminate some of the ploys and deterrents the student uses as barriers in settling into work.

Poor grades and low scores are markers that let a teacher know that a student did not accomplish a specific set of tasks. They may signal learning problems or missed skills, but they may also tell us that the student is not ready to process that information. They may let us know that math or reading is not a strength based on the patterns shown, but they do not inform teachers about specific skills or concepts that are missing.

There are specific steps a teacher can use. An excellent informal assessment can be made during a test, for example. Near the desk, ask a student who has difficulty in a subject to sit down and talk through the decisions being made on a test. It can be a spelling test, a math quiz, or a multiple-choice or short-answer quiz. As the student explains, look for cues about the depth of ideas, the missing concepts, and erroneous connections.

Low scores do not tell us much. They let us know that a student did not do well on the test, but they do not tell us what the student knows. Do high scores tell us more? Do we know that the student has the information we desire? Think of the situations that might make the score a false representation. The student has a cheat sheet. The student copied another person's answers. The student studied the right concepts, but will not remember the material if the test comes again in two weeks. The student made great guesses.

Instead of low and high scores on papers, teachers learn the most by observation and interaction with each student. The key to effective instruction is to look at what is working for students. By observing the things students can do and like to do, teachers can catch students' attention and interest and find learning abilities. Sometimes teachers even discover a student's passion. Using the subject that is a passion enhances the motivation and energy the student directs toward tasks.

Teachers also learn from the tasks a student cannot do, puts off, refuses to work on or complete, or finds frustrating and confusing. These task failures are

often marked with acting-out and off-task maneuvers. Anger, abusive language, stalling, arguing, and getting off topic are examples of behaviors students who cannot work often choose instead. With observation and reflection, teachers can recognize these ploys and add them to their informal data. Very bright and capable students may also engage in these activities for attention and stimulation, but the energy and body language is quite different when it is a whimsical use of time rather than a countermeasure to save face.

Some student actions provide instant clarity that the work is not possible for them to do. When a student tries to write and her handwriting is illegible, the spelling inventive, and the words do not make a sentence, it is clear that the student is not able to write an essay, no matter how much effort is expended.

If teachers wish to teach students instead of subjects, they should listen to these openings for informal assessment:

- When a student says "No," find out why.
- When a student says "I can't," believe him or her and back up to the place where success can occur.
- When a student expresses discouragement, go beyond encouraging and listen to the student's true message.
- If a skill eludes a student, try the following:
  - Link math instruction to the student's current conceptual understanding.
  - Give students problems that pertain to their own lives.
  - Teach word problems as games and have students develop their own problems rather than solving preset ones.
  - Concentrate on success and what is going well.
  - Allow students to find personal methods for solving math problems and then get them to teach it to others.
  - Encourage students to use manipulatives, calculators, and computer games to enhance depth and rate of learning.
  - Find ways to generalize math operations to current, every day use of skills.

Presently, the testing programs in schools focus on intellectual strengths. It is not hard to understand why teachers work assiduously to prepare students to be successful academically and that the pressure for success includes being able to pass national and state tests. High-stakes testing focuses attention on the importance of reading, writing, and math. These are important skills, and students need to use them fluently to be literate and move ahead in higher education. Teachers are responsible for finding a way for the assessment to take place. The fact that there is no testing for other factors can cloud a teacher's vision, however. A whole child comes into the classroom. To be effective in educating that youngster, a teacher must address much more than those three R's.

## **Typical Classroom Assessments**

Inclusion teachers need to have some way to determine if their students are learning basic classroom content and that their IEP goals are being met. Assessing classroom achievement includes all the various methods for determining the degree to which students are achieving the planned learning products or outcomes of instruction (Gronlund, 2006). Classroom-based assessments measure instructional objectives of the class.

Accordingly, inclusion teachers create and use a variety of assessment approaches, called classroom-based measures, when analyzing their students' work. Classroom-based measures are usually developed to coordinate with curriculum that has been taught in the class. As such, they can take place as formal or informal tests and quizzes. Other commonly used classroom assessments include performance and portfolio assessments.

Classroom assessments are useful when they provide information that informs the teacher and the students about how well students have learned and what they may still need to learn about the content they have been studying. Results of assessments also give teachers information about the effectiveness of lessons and classroom delivery. When classroom-based measures provide consistent information about the children's knowledge level of the material covered in class, the measure may be valid and reliable. The "may be valid and reliable" phrase means that even the most thoughtfully designed measure may be invalid and unreliable if the task demands and student ability to respond have not been taken into account.

### **Alignment Between Formats of Instruction and Testing**

The format of the evaluation measure must mirror accommodations students use in their daily class activities. Larry, for example, uses a calculator when completing math assignments in class. To be valid, any measure of Larry's math skills should include access to a calculator. Karl has a reference card listing the steps for creating a five-paragraph essay, and he is allowed to use this card under any classroom condition, including quizzes and tests.

Any number of accommodations can be created that take into account the relationship between the task demands and student ability to respond (e.g., font size, response mode, time permitted, use of assistive technology). Table 5.3 includes additional suggestions for students needing adaptations in testing and assessment. Accommodations for certain types of evaluation measures must be listed on the student's IEP.

### **Need for Multiple Measures**

To get a complete picture of students' skills or knowledge, information from multiple measures over a variety of classroom situations are most valid. Students in inclusion settings participate in a variety of classroom assessments (e.g., quizzes,



**Table 5.3** Suggestions for Students Needing Adaptations in Testing/Assessment**Physical Adaptations of Material**

- Provide test copies that are easy to read and uncluttered: typed, clear language, double-spaced and with ample margins
- Underline or highlight directions or key words
- Match font size to students' visual needs
- Eliminate or minimize copying activities by providing information on the test rather than from another source, like the board or a book

**Format Adaptations**

- Provide a word bank to select from for fill-in-the-blank questions
- Allow students to verbally supplement or orally complete a quiz or test
- Encourage students to use an assistive technology to support writing or organizing task demands

**Time and Environmental Adaptations**

- Allow extended time for completing the test
- Administer parts of the test on successive days rather than at one time
- Reduce the number of test items
- Reduce distractibility by using carrels or giving tests when no other students are around (e.g., after school)
- Administer the test in another setting (e.g., library or resource room)

tests, performance measures, and portfolio assessment). Quizzes and tests usually tap into individual students' long- and short-term memory. Performance measures often allow students to demonstrate their understanding through projects and activities, singly or with others, and portfolios provide a forum for examining and analyzing knowledge over a set of work.

**Daily Classroom Formative Feedback**

As an inclusion teacher, Ms. Brenes has accounted for learning styles and made appropriate accommodations for daily classwork. She is currently teaching a science unit on photosynthesis. The format of her evaluation tools mirrors the format of classroom task demands. Ms. Brenes uses a potpourri of classroom-based evaluation measures, including daily feedback, weekly quizzes, a formal summative test, a student-selected performance measure, and portfolio assessment. Since Ms. Brenes must give parents and students feedback for the science grade on report cards, and in some cases IEP reports, points are assigned to each of the measures and grades calculated on total points accrued.

Every day, Ms. Brenes provides her students with formative feedback about their work. The daily feedback serves an important function as the children move forward in their quest for knowledge about photosynthesis. By giving the students pointers while their work is in process, she is reducing occasions for frustration and increasing opportunities for praising student performance.

In Ms. Brenes' educational view, daily feedback consists of at least two kinds. Students get feedback about their understanding of their work as well as the quality of their work. Ms. Brenes focuses on two types of accuracy—accuracy for ideas and accuracy for following directions. When students are unclear about either content or directions, she guides them in the right direction based on level of need and learning style. Ms. Brenes' feedback for accuracy is typically verbal and, if needed, includes modeling; no points or scoring systems are involved with this type of daily feedback.

Ms. Brenes purposely does not give points for quality of daily work. She wants her students to welcome feedback and find her comments to be positive experiences that lead to increased understanding. She also wants to reduce the anxiety that some children feel when they pressure themselves to create *perfect* work. In addition, she takes into account accuracy of understanding the concepts required to complete learning tasks. Ms. Brenes has several children who need personalized explanations in order to understand what is expected, and in spite of being with a friend or within a group still need her assistance to completely comprehend the class assignment.

Ms. Brenes is a strong advocate for self-accountability. Accordingly, she expects some tangible product for the day's work from each student. She is a firm believer in recording progress and for the current unit requires each student to keep a photosynthesis log. At the end of each science period, all the children enter a brief summary of what they have accomplished for the day. Content and type of entries are flexible and reflect personal styles and skills of students.

Information can include descriptions of products; material found in books, journals, or the Internet; or two- to three-sentence descriptions of ideas discussed within a group or with a partner. Sketches may be used in place of written descriptions. When students have worked in groups or with partners, descriptions can be generated by the group, but each member must have a log entry, even if the documentation is identical to that of the other members of the group.

Ms. Brenes gives one point for the log entry and no points if no entry has been made. Points are recorded so students can earn 5 points a week for journal entries. Ms. Brenes believes that self-evaluation is an important aspect of learning, and, given the photosynthesis log assignment, one that all students can do. Thus, all students can be awarded points.

### **Weekly Quizzes and Unit Exams**

Most daily work represents active learning principles and, accordingly, a lot of partner- and small-group work. But Ms. Brenes also wants to know how much each student has learned independent of the group as well as the quality of each student's understanding of photosynthesis. Ms. Brenes includes quizzes and end-of-unit exams as part of her evaluation approach. Prior to giving quizzes that count toward a grade, Ms. Brenes makes test preparation strategies part of the daily lesson.

Some of the strategies Ms. Brenes uses for test preparation include the following:

- Providing students with an example of the type of test questions they might be asked to complete
- Administering one or two items and then providing feedback the next day on both the content and the way the students responded
- Teaching the students strategies and skills for taking a variety of tests
- Practicing various types of testing formats

These strategies not only provide test preparation for students, but also give Ms. Brenes insight into her students' test-taking competencies.

For example, Ms. Brenes uses many types of classroom assessments to determine how well her students are learning and also uses many different types of test items to assess knowledge. She has organized the 4-week unit on photosynthesis by first creating the content grid shown in Table 5.4. From this grid, with a little label tweaking, Ms. Brenes can develop an outline that can be used for multiple purposes (see Table 5.5). She can use the same grid to develop weekly quizzes, a unit test, and a record-keeping sheet for the class as a whole and each of the students (Linn & Gronlund, 2000).

A quick glance at Table 5.6 shows that Ms. Brenes can create a 12-item quiz on basic terms by intersecting the first column with each of the words on the first row. In this quiz, Ms. Brenes is gathering information about her students' understanding of basic terms for photosynthesis. She is asking her students to demonstrate their knowledge of photosynthesis by

- identifying four basic terms,
- describing four basic terms, and
- constructing four basic terms.

**Table 5.4** General Grid Template

	Identify	Name	Describe	Construct	Demonstrate	Total
Basic Terms						
Symbols						
Specific Facts						
Real-World Applications						
Total						

**Table 5**

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1. Basic

1.1 n

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3.4 E

4. Applyi

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4.3 C

5. The ef

5.1 C

5.2 ic

5.3 F

**Table 5**

Basic Ter

Symbols

Specific F

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Applicat

Total

**Table 5.5** Content Outline for a Four-Week Unit on Photosynthesis

The students will understand:

1. Basic terms
  - 1.1 matches term to definition
  - 1.2 matches term to picture of photosynthesis elements
  - 1.3 identifies correct and incorrect use of the term
2. Symbols for photosynthesis
  - 2.1 Matches symbol with the photosynthesis element
  - 2.2 Draws the symbol for a specific photosynthesis element
  - 2.3 Identifies the meaning of each symbol
3. Specific facts
  - 3.1 Identifies the three elements required for photosynthesis
  - 3.2 Distinguishes between correct and incorrect photosynthesis processes
  - 3.3 Explains how the meaning of the word *photosynthesis* is related to the process
  - 3.4 Explains how plants store energy through photosynthesis
4. Applying factual knowledge to real-world situations
  - 4.1 Identifies what happens to plants without sunlight
  - 4.2 Describes how to make unhealthy plants healthy
  - 4.3 Describes what happens to plants in different types of light
5. The effect of variables on real plants
  - 5.1 Observes the effect of light and dark on plants
  - 5.2 Infers the effect of various degrees of sunlight and darkness on plants
  - 5.3 Produces an explanation based on observations about how sunlight affected the plants

**Table 5.6** Grid Template Used to Design 12-Team Quiz

	Identify	Name	Describe	Construct	Demonstrate	Total
Basic Terms	4	0	4	4	0	12
Symbols		4	4	4	2	14
Specific Facts	5	4	2	3	1	15
Real-World Applications	5	0	5	1	0	11
Total	14	8	15	12	3	42

Rather than generating an entirely new grid and creating more work for herself, Ms. Brenes can also produce a 42-item test over the entire unit using the same framework. The grid template allows Ms. Brenes to get an overview of the type and number of questions she is sampling, as well as saving herself time by not duplicating her efforts.

Ms. Brenes uses broad categorical terms like *identify*, *name*, *describe*, and so on, in her grid template to represent specific categories of behavior that are associated with particular types of test questions. Table 5.7 describes common synonyms and test items for the generic verbs used by Ms. Brenes in row 1 of the grid template.

### Significance of Test Items

The type of test items used has particular significance for teachers in inclusion settings. Not all students will learn the same content at the same rate, nor will all students be able to produce the same type of responses. Test items that fall under the identification heading (e.g., matching, multiple choice, true-false) require students to pick the correct answer from a set of answers. Students with very slow processing rates or those who have difficulty retrieving information from memory are more likely to demonstrate their true knowledge of content on identification questions than if asked to produce information. All other item types found in

**Table 5.7** Common Synonyms and Test Items for the Generic Verbs  
(adapted from an a wise but unknown scholar)

Generic Verb	Sample Synonyms	Type of Test Question
Identify	Select, discriminate, point out, mark, match, recognize	<ul style="list-style-type: none"> <li>■ Multiple-choice</li> <li>■ True-False</li> <li>■ Matching</li> </ul>
Name	Label, list, multiply, compute	<ul style="list-style-type: none"> <li>■ Completions</li> <li>■ Fill-in-the-blanks</li> </ul>
Describe	Define, explain, tell, state	<ul style="list-style-type: none"> <li>■ Essay</li> <li>■ Short-answer</li> </ul>
Order	Arrange, alphabetize, rank, list in sequence	<ul style="list-style-type: none"> <li>Ordering of</li> <li>■ Objects</li> <li>■ Events</li> <li>■ Procedures</li> </ul>
Construct	Prepare, draw, make, build, create, compose	Teacher gives a direction to produce a product. A checklist or rubric is provided.
Demonstrate (must be used with another verb that describes the action to be observed)	Deliver, catch, type, play, drive, march, throw, sing	Teacher gives a direction to demonstrate a skill that does not result in a product. A checklist or rubric is used as the demonstration progresses.

Table 5.7 require students to produce information in some form or another. As teachers move down the list of generic verbs, the type of test items become more complex and require higher skill levels.

Ms. Brenes can test all her students on basic terms of photosynthesis, but she can individualize the quiz by taking into account the skill strengths of her students. She can align test items with the cognitive, physical, and emotional levels of her students and can provide accommodations in her quizzes and tests by matching the task demands of the test items with her students' skills. Not all students need the same test items, but all students need to demonstrate their knowledge independent of the group.

Linus, Gavin, and Leigh are three of Ms. Brenes' students who need accommodations to demonstrate their knowledge of basic terms related to photosynthesis. Linus is cognitively low functioning compared to his class peers and has significant difficulty with fine-motor skills. He can read a few direction words, but, in general, reading is not comfortable for Linus. Linus wants to be part of his class group and does not appreciate being singled out for most activities, including quizzes and tests. Ms. Brenes has created a test for Linus that focuses on matching basic photosynthesis terms with pictures. In order for Linus' test to look length appropriate, i.e., not so obviously shorter than the tests his classmates are completing, Ms. Brenes asks Linus to answer four multiple-choice, four true-false, and four matching items, all involving pictures representing the vocabulary of photosynthesis that the class has been learning. To account for fine-motor difficulty, Linus uses a highlighter to indicate responses.

Gavin is a very bright student who has difficulty organizing information. Gavin does not need to have a quiz that asks identification questions. He needs a quiz that allows him to produce very short answers. Completions and fill-in-the-blank items best showcase Gavin's understanding of vocabulary associated with photosynthesis. With a prompt card for writing definitions, Gavin can also produce definitions with an example. Gavin's prompt card says:

1. Write the term.
2. Tell as many ideas as you can about the term.
3. Give one example.

Gavin's prompt card helps him organize, but does not provide any content information about basic vocabulary.

Leigh has a lot of ideas, but has difficulty expressing herself in writing and orally. Leigh is also deathly afraid of any sight, sound, or suggestion of quizzes or tests. Nonetheless, she has to be able to demonstrate her higher level thoughts. Ms. Brenes has found drawing to be the most valid accommodation for Leigh. Ms. Brenes has adapted Leigh's test responses by asking her to draw a semantic map for each of the vocabulary words accompanied by stick-figure drawings representing various applications of the terms. As Leigh's classmates are taking a quiz, Leigh has been excused from the exercise to create semantic maps. Both Leigh and Ms. Brenes are happy with this alternative to quizzes and exams.

### Technology as a Time Saver

Before most inclusion teachers run from the room with the fear of multiple-test development, technology and flexibility of the organizational grid must be considered as ways to save teacher preparation time. Technology is a good friend for inclusion teachers. Through the use of personal computers, Ms. Brenes and her counterparts can create folders, files, and test items. Although Ms. Brenes does not always know who will be in her classes from year to year or what new content she will include in her units, she does know that she will be teaching photosynthesis.

The first year Ms. Brenes created the photosynthesis unit, she used the grid to guide test development. Even before she met her students, Ms. Brenes generated items to fit in the categories on the grid. Then she created a file for the items generated. As she got to know her students, she began to create additional files reflecting accommodations for specific needs (e.g., large print to accommodate Melissa's visual impairment). Throughout the years, Ms. Brenes has created files from which she can draw items that reflect the content, the type of knowledge tested, and accommodations that increased access for children with disabilities to demonstrate their knowledge. The files were put into folders by content (e.g., in this case, the photosynthesis file). Evidence of student and class achievement was also developed from grid categories.

### Documentation of Class Test Data

Teachers like Ms. Brenes also use the grids to document progress. Because the items on the grid represent measurable behaviors, student progress on the number of correct and incorrect responses can easily be documented. Instead of creating mounds of paper, Ms. Brenes can document the progress of the entire class or an individual student within the class. Comparisons between an individual's progress and class progress can partially show success or lack of success for a particular subject in an inclusion setting. A comparison of whole-class documentation for quiz on basic terminology for photosynthesis with Jeremy's individual achievement is found in Table 5.8.

Ms. Brenes can get a lot of information about how well all the students are accessing basic terminology by recording how many children correctly answered particular sections of the quiz. She can see at a glance that something has gone awry with descriptions of basic terms. Even though 19 students correctly understood concepts related to description of basic terms, 9 did not. Ms. Brenes sees a need for intervention; the intervention may be focused on content, instructional delivery, or maybe test format. When Ms. Brenes documents individual students' responses, she can begin to make comparisons for one student with the class as a whole. For example, Jeremy's total score was 9 test items correct out of a possible 12, or 75%. His overall score is low, but also misleading. When compared to the rest of the class, Jeremy had problems only in the area of describing basic terms. His errors were the same as those made by a small but substantial number of his classmates. By examining Jeremy's grid Ms. Brenes could also determine that, overall, Jeremy had a good grasp of basic terminology for photosynthesis.

Table 5

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**Table 5.8** Comparison of Whole-Class Documentation for Quiz on Basic Terminology for Photosynthesis With an Individual Student's Achievement

Whole Class	Identify	Name	Describe	Construct	Demonstrate	Total
Basic Terms	23 + 5 -	NA 9-	19 + 4-	24+	NA	NA

Jeremy's Achievement	Identify	Name	Describe	Construct	Demonstrate	Total
Basic Terms	4/4 +	NA	1/4 +	4/4 +	NA	9/12+

**Legend:**

- numbers in whole class represent how many of Ms. Brenes' 28 students responded
- + means correct
- - means incorrect
- numbers in Jeremy's chart represent how many questions he got correct out of the numbers of questions asked

Based on an interpretation of student scores, Ms. Brenes can document progress and make data-based educational decisions. Some of her decisions may result in changes to her instructional approach, determination of grades, and a basis for parent conferences.

**IEP Goals and Documentation**

Items on a test should be aligned with the students' IEP goals. Test performance relative to instructional objectives or benchmarks aligned with the IEP goals represents important information for developing future goals and instructional accommodations or modifications. In Jeremy's case, the ability to describe content information is an IEP goal. Ms. Brenes can ask to have goals reassessed by the IEP team if

1. Jeremy continues to have problems describing symbols and specific and real-world applications of photosynthesis after one or more interventions have been implemented; and
2. an inability to describe the content of photosynthesis is negatively impacting Jeremy's ability to access information from the unit.

Fortunately for Jeremy, Ms. Brenes uses multiple types of assessments in addition to quizzes and tests to evaluate his progress.

## Performance Assessments

Performance assessments usually reflect student ability to carry out an action or behavior according to a prescribed set of expectations. Performance assessments also go by the names *alternative assessments*, *direct assessment*, and *authentic assessment*. The prearranged expectations are often in the form of checklists, rubrics, or rating scales. The purpose of a checklist, rubric, or rating scale is to provide guidance about what kind of product is expected in the assignment and, when points are attached, the grading criteria. All three formats basically list activities or expectations for the project but with slight variations. Checklists, rubrics, or rating scales are equally acceptable for conducting performance assessments.

Performance assessment, or in more common parlance *authentic assessment*, is a means to evaluate the accomplishments of students engaged in personally meaningful problem solving. Performance assessment requires students to construct or perform a particular task or activity. The empowering aspect of performance assessment is that no single answer is the best; a variety of responses can be considered excellent. Performance assessments can be designed around IEP goals and are also one more piece of documentation of the inclusion process.

In Ms. Brenes' class, the children have been learning about photosynthesis. Ms. Brenes developed a number of ways to measure their understanding of photosynthesis through performance assessment of class projects. Two of the class projects included designing a poster and conducting a science experiment. In order to ensure that the students understand the expectations for their projects, Ms. Brenes and the class developed a rubric for creating a poster. To account for individual preferences when describing the science experiment, Ms. Brenes created three formats—a checklist, rubric, and rating scale—for following the guidelines.

### Designing Assessments

Checklists, rubrics, and rating scales are often designed by the teacher and students together. The very act of designing a given set of expectations is yet another way to engage students in developing their own learning. The more precise the expectations are, the easier it is to determine proficiency levels. Clarity of expectations is a vital aspect of performance assessments.

Precision does not tell the student what answers are expected but supplies guidelines. The students can then determine how to fulfill the expectations. A rubric for developing a poster is presented in Table 5.9. The smiley faces are used to rate each requirement, but points may also be assigned based on the students' ages and the purpose for which the rubric is intended.

The rubric for developing a poster can be applied to any topic or any skill level. When Ms. Brenes decided to have her class create a poster, she could have labeled the topic "photosynthesis," but instead she let the students determine specific topics within the category of photosynthesis. Stefania's poster, for example,

**Table 5.9** A Rubric for Developing a Poster

Performance Task Assessment List Poster			
Element	Possible Points	Earned Assessment	
		Self	Teacher
<b>Focus</b> The topic is very clear when you first look at it.			
<b>Main Ideas</b> The main ideas are appropriate to the topic and are presented correctly.			
<b>Supporting Details</b> Appropriate and accurate details support each main idea.			
<b>Purpose</b> The purpose of the poster is clearly accomplished.			
<b>Drawings and Illustrations</b> All illustrations, photographs, and drawings add to the purpose and interest of the poster.			
<b>Mechanics (C-U-P-S)</b> There are no errors in capitalization, usage, punctuation, or spelling.			
<b>Layout and Design</b> The overall organization, design, use of color and space help to make the poster interesting and to communicate the message.			
<b>Creativity</b> The poster is highly original and creative.			
<b>Neat and Presentable</b> The poster is very neat and presentable.			
	<b>Total:</b>		

## Did I do my best work?

 **TERRIFIC**
 **OK**
 **NEEDS WORK**

Source: Adapted from materials developed by Pomperaug Regional School District, Middlebury, CT.

depicted the effect of different degrees of light on the growth of her favorite flower, the daisy. Addison chose to use a *Star Wars* theme when he generated a poster depicting how light energy is trapped by chlorophyll. Personal interests do not alter the guidelines of the rubric.

Equally important, Ms. Brenes could take into account the skill levels of individual students. She could lengthen or shorten the expectations found on the checklist, rubric, or rating scale. For example, Wesley has difficulty producing and organizing ideas in print and is not a very good artist. After a discussion of various formats that could fulfill the assignment to create a poster, Wesley, with a little help from a computer-generated graphic organizer, decided to create a poster in the form of a semantic map. He met the requirement of drawings and illustrations by downloading pictures from the Internet and placing them in his map.

Wesley's classmate Merriam, who has significant cognitive deficits, created a poster with a different type of accommodation. Ms. Brenes made a poster template and developed a set of black-and-white line drawings related to photosynthesis. Merriam's task was to paste the drawings above the appropriate labels on the poster board. Merriam had choices within this task. Merriam could have mounted the pictures on construction paper, colored them, added glitter, or created any esthetic touch that she wished. Merriam chose to use markers scented with the essence of chocolate, cinnamon, and "very berry" to color in the drawings; she also artfully arranged spring flower stickers throughout the poster.

For the poster on photosynthesis, Ms. Brenes provided the children with performance criteria via a rubric, but for other topics she has found checklists and rating scales equally beneficial as a means of conducting performance assessment. In fact, sometimes Ms. Brenes provides her students with a choice of following a checklist, a rubric, or a rating scale when working on projects. Some children understand or feel more comfortable with different types of guidelines, even when the performance expectations are the same. The value of performance measures is that they allow another insight into children's knowledge base. The assessments can be adapted to match children's interests as well as cognitive, affective, and physical skills. As a result, all children can be included meaningfully in performance measures, and another source of data can be used to make educational decisions.

### Portfolio Assessment

Portfolio assessment is another technique that can be used for evaluation purposes. Portfolio assessment is an ongoing process that can capture the many activities and accomplishments of individual students or can showcase the work of a class on a particular unit or project (Venn, 2004). Portfolios are collections of samples of student work and, depending on the purpose, can include results of systematic observations of student behavior. Most portfolios also include student reflection and self-evaluation components. Material in the portfolio is usually organized by chronological order and category. When portfolios are ordered, student achievement is more easily analyzed and development can be viewed over

**Table 5**

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- imprc
- provic
- select
- select
- compl
- result
- starte
- evalua

Source: Fr  
& Bacon.

time. Ms. Brenes, like many inclusion teachers, uses two types of portfolio assessments: student-centered portfolios and teacher-centered portfolios.

### *Philosophical Orientation in Portfolio Assessment*

The type of samples kept for portfolio assessment depends on the philosophy of the teacher and the school. Some portfolios are used to showcase the students' best work; other portfolios house random samples of assignments and tasks. In any event, portfolio assessment is used to review a child's work in a way that is beneficial to the teacher, student, or parent.

Student-centered portfolio assessment can target a broad array of skills or target student performance related to particular themes or instructional units (e.g., photosynthesis) and includes actual samples of student work.

Teacher-centered portfolio assessments include actual samples of student work and add records of systematic observations of the student's integration into the general education classroom. Teacher-centered portfolio assessment also provides information regarding skills, disposition, and work habits.

Both of these types of portfolio assessments are valuable approaches to reinforcing learning and making formative decisions about students' knowledge and growth (Wilkerson & Lang, 2003). General guidelines for selecting content for portfolios are found in Table 5.10. All content placed in any type of portfolio used for assessment is valuable when selection is based on established content and performance standards.

### *Student-Centered Portfolio Assessment*

Student-centered portfolio assessment can include any aspect of a student's performance: writing samples, pictures of projects, examples of how the student solved mathematical problems, results of scientific experiments, artwork, songs. Any achievement that represents the child's work that can be documented in some way

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**Table 5.10** General Guidelines for Selection of Portfolio Materials

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Entries should be:

- in harmony with the goals of instruction and the use to be made of the portfolio (e.g., to improve learning, for use in parent-teacher conferences, as part of a schoolwide assessment),
- provide a variety of types of evidence (e.g., written, oral, exhibits, projects),
- selected in terms of criteria to be used in judging them,
- selected by students, or at least they should be involved in the process,
- complex enough to allow for students' self-evaluations and their reflections on the learning that resulted,
- started early in the instructional program to better show growth in learning, and
- evaluated by using the criteria and standards established for the performance tasks.

Source: From "Assessment of Student Achievement," (p. 161), by N. L. Gronlund, 2006, Boston: Allyn & Bacon.

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can be kept in a file or folder as a portfolio. Student-centered portfolios usually contain material selected by students (e.g., work samples, writing samples, drawings, performance tasks, projects, and assessment results from quizzes and tests).

Students must be taught how to choose material for their portfolios. A secondary benefit of portfolio assessment is to help them develop an awareness of the quality of their classwork. Most students can use the following questions to guide their selection of material (Gronlund, 2006):

- Why did you choose this entry?
- What did you need to do to complete this assignment or quiz?
- What have you learned from the entry selected?
- What, if anything, would you do to improve the work quality?

Some children, especially those with low cognitive or language skills or those who lack reflective experience, may need additional assistance before they can independently and meaningfully use questions to guide their material selection. An instructional approach of model–lead–test is applicable for teaching children how to make judgments about their work. Students and teachers can brainstorm the type of ideas that are important to think about when selecting material for portfolio inclusion and assess their product and process. First, the teacher can provide a model of what type of work is expected and how to place the material in the portfolio. Then, together, the teacher and students can discuss and demonstrate why they have chosen the work and where to place it in their individual portfolios. Through instruction and practice, most students will develop self-assessment and judgment-making skills for choosing which material to put in their portfolios.

Portfolio assessments involve students in the assessment process by encouraging them to think about their performance and evaluate their progress (McMillan, 2004). Reflection feedback forms can be developed to move children from dependence on the teacher to independence in self-assessment and to provide them with a system for choosing portfolio content.

Reflection feedback forms provide triggers or scaffolds for helping students develop a way to think about their work. These triggers or scaffolds are simple statements elaborating on the overall guiding questions. The larger question is: “Why did I choose this project?” The student picks the responses that are most applicable. An example of a generic reflection feedback form that students can use when assessing their product is found in Table 5.11.

The generic nature of the questions and responses allows the feedback form to be used with any type of project. It may be modified to reflect inclusion of test or quiz materials. Reflection feedback forms can be more basic or more complex depending on students’ needs.

### *Teacher-Centered Portfolio Assessment*

Teacher-centered portfolios may, but do not have to, include student selection. Teacher-centered portfolio assessments include content that is selected for very

**Table 5.11**

Circle the st

■ Why did  
I got a go  
I liked th  
The topic

■ What did  
I worked  
I looked  
I read so  
I learned  
I made a

■ What hav  
I learned

Please add y

■ What, if a  
I would d  
I would cl  
a.  
b.  
c.

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**Table 5.11** Example of a Reflection Feedback Form in Self-Assessment for a Project

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Circle the statements that apply to you and the project included in your portfolio.

- Why did I choose this project?
  - I got a good grade.
  - I liked the way I completed the answers.
  - The topic was interesting.
- What did you need to do to complete this assignment or quiz?
  - I worked with my friend.
  - I looked up information on the Internet.
  - I read some books.
  - I learned how to organize my information in a log.
  - I made a poster.
- What have you learned from the entry selected?
  - I learned a lot, a little, or not too much about \_\_\_\_\_.

Please add your ideas about work quality

- What, if anything, would you do to improve the work quality?
    - I would do nothing more; the project is good.
    - I would change the following because:
      - a.
      - b.
      - c.
- 

specific purposes. Some teachers keep formal and informal tests in the assessment portfolio. The teacher-centered assessment portfolio content exceeds work products by including an observation section. The choice of the type of observation tool is left to the teacher's discretion.

Analysis of the observations adds one more level of understanding of students' strengths and needs. Most children in inclusion settings do not need a teacher-centered portfolio. However, for children who do not seem to be progressing or for whom placement in the general education classroom is questioned, teacher-centered portfolio assessment provides vital data for decision making.

Observation tools used in teacher-centered portfolio assessment may include checklists, inventories, descriptions of student behavior, rating scales, and anecdotal records. Systematic observations allow teachers to examine students' behavior under different settings, time frames, and accommodations. The purpose of any type of observation tool is to describe a child's progress from the beginning to the end of a class, project, or unit using relatively unbiased techniques.

#### *Portfolio Assessments as a Means of Communication*

Student- and teacher-centered portfolios provide a basis for discussing class progress. The student-centered portfolio is child-friendly and can be used as the

basis for classroom conferences. Student-centered portfolio assessments can also give students a sense of empowerment and accountability for their work. In a very real sense, a collection of student products can be an objective way for students to get a large picture of their classroom growth, including areas that need to be strengthened.

When portfolio assessments are used formatively, students can examine their work products as they are being completed. They can identify assignments that have been completed, which ones need to be finished, as well as overall achievement trends. Conferencing using a portfolio assessment can be particularly helpful for students who have a difficult time organizing information, managing time, or remembering what they had done and what they are expected to do, because the concrete evidence of progress is the actual work and not some abstract notion.

Ms. Brenes uses portfolio assessments both formatively and summatively for specific projects. She individualizes her portfolio conferences. Based on need, she confers with three of her students daily and one student every other day. Conferences with the remaining students in her class are rotated; Ms. Brenes usually sees each of these students every 4 or 5 days. In the formative conferences, Ms. Brenes asks students to explain the contents of their portfolios. She asks them questions and clarifies any needed dimension (i.e., content, expectations, or quality). Portfolio assessment conferences also give Ms. Brenes additional opportunities for praising student work. Ms. Brenes does not give grades when using the portfolio assessments formatively. Grades based on portfolio assessment are given at the end of the unit.

Portfolio assessment can also provide an excellent basis for discussion among adults involved in a child's educational life. The contents of the portfolio diminish miscommunication and increase understanding of a child's progress. Information taken from a teacher-centered portfolio can be used to help the teacher make education decisions and to bring documentation to parent conferences and IEP meetings.

## **Summary**

Assessment is the collection of information to identify what does and what does not provide students with access to the general education curriculum. Inclusion teachers need to have techniques for determining the effectiveness of educational programming with a special emphasis on student progress toward IEP goals. Analysis of students' daily performance is the best source of information for identifying student achievement in the general education curriculum.

Informal assessments can include, but are not limited to, quizzes and exams. Performance and portfolio assessments are also important sources of academic achievement. Many aspects of informal assessment occur daily and require monitoring and adjusting of instructional delivery.

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Assessment takes into account the physical, emotional, philosophical, social, and intellectual developmental level of the student. By combining awareness of human development patterns and the specific patterns of individual students, teachers can implement the most appropriate educational practices in inclusion settings. Through informal assessment, teachers and students work together to recognize what is needed to become successful learners.

## References

- American Association of School Administrators. (1992). *The nongraded primary: Making schools fit children*. Arlington, VA: Author.
- Arends, R. I. (2004). *Learning to teach* (6th ed.). New York: McGraw-Hill.
- Bagnato, S., & Neisworth, J. (1990). *System to plan early childhood services*. Circle Pines, MN: American Guidance Service.
- Brazelton, T. B. (1983). *Infants and mothers: Differences in development*. New York: Delta/Seymour Lawrence.
- Gronlund, N. E. (2006). *Assessment of student achievement* (8th ed.). Boston: Allyn and Bacon.
- Lidz, C. (1991). *Practitioner's guide to dynamic assessment*. New York: Guilford.
- Linn, R., & Gronlund, N. E. (2000). *Measurement and assessment in teaching* (8th ed.). Upper Saddle River, NJ: Merrill.
- Maslow, A. H. (1968). *Toward a psychology of being*. New York: Van Nostrand.
- McMillan, J. H. (2004). *Classroom assessment: Principles and practices for effective instruction* (3rd ed.). Boston: Pearson.
- Messick, S. (1984). Assessment in context: Appraising student performance in relation to instructional quality. *Educational Researcher*, 13, 3-8.
- Meyer, C. (1992). What's the difference between authentic and performance assessment? *Educational Leadership*, 49(8), 39-40.
- No Child Left Behind Act of 2001, 20 U.S.C. 70 § 6301 *et seq.*
- Overton, T. (2005). *Assessment in special education: An applied approach* (4th ed.). Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Salvia, J., & Hughes, C. (1990). *Curriculum based assessment: Testing what is taught*. New York: Macmillan.
- Salvia, J., & Ysseldyke, J. (2001). *Assessment* (8th ed.). Boston: Houghton-Mifflin.
- Salvia, J., & Ysseldyke, J. E. (2007). *Assessment: In special and inclusive education* (10th Edition). Boston: Houghton-Mifflin.
- Venn, J. J. (2004). *Assessing students with special needs* (3rd ed.). Upper Saddle River, NJ: Pearson.
- Wilkerson, J. R., & Lang, W. S. (2003, December 3). Portfolios, the Pied Piper of teacher certification assessments: Legal and psychometric issues. *Education Policy Analysis Archives*, 11(45). Retrieved July 1, 2005, from <http://epaa.asu.edu/epaa/v11n45/>
- Wood, J. W. (2005). *Adapting instruction to accommodate students in inclusive settings* (5th ed.). Upper Saddle River, NJ: Pearson.