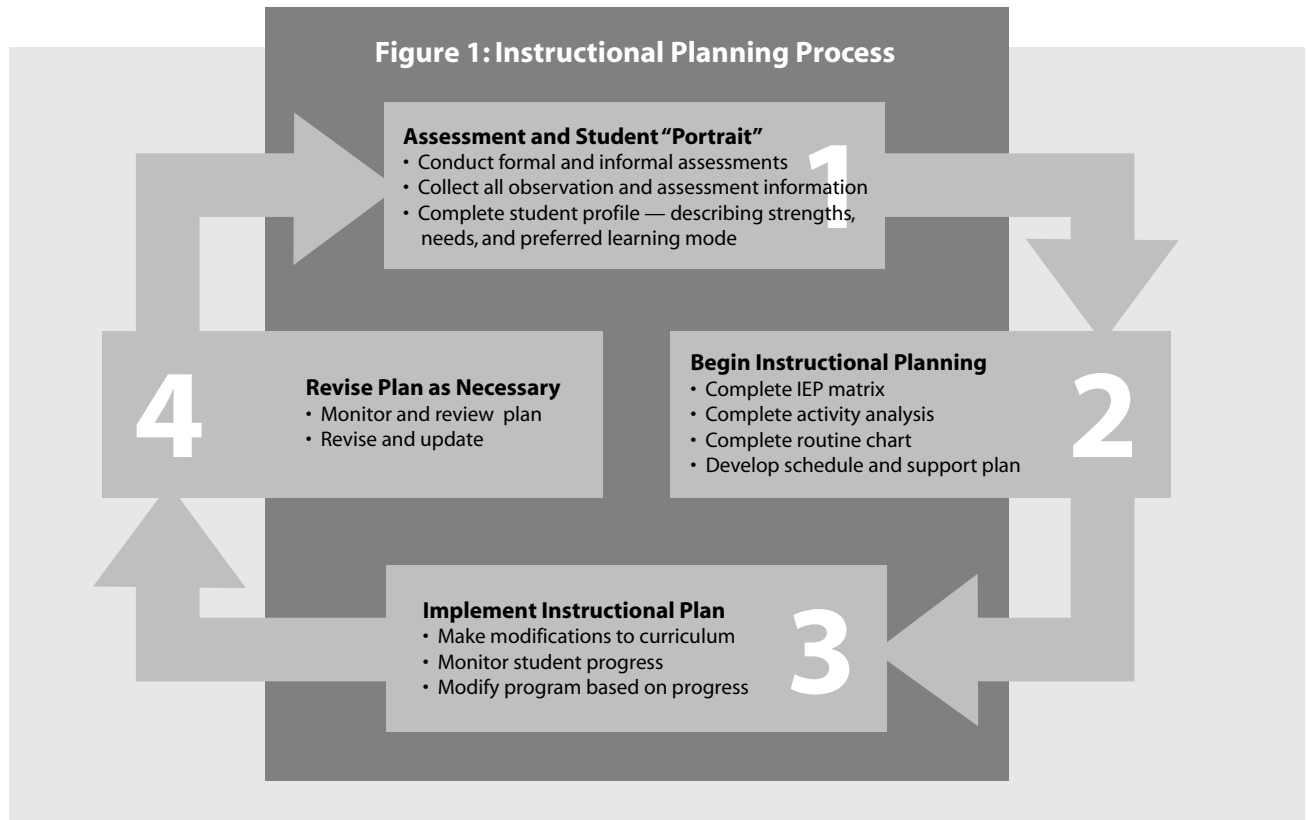


Assessment

In order to effectively implement inclusive education, educators (in collaboration with parents, students, and others) must systematically use research-based assessment practices, instructional techniques, and meaningful general education core curriculum.

Planning a successful inclusive program for an individual student is an ongoing process that involves collaboration among parents, special educators, and general educators. The development of an appropriate instructional plan for the child is an important step to a planned and meaningful program. The plan ensures that the instructional program meets the needs of the child, appropriately utilizes the supports and services, and ensures that the child is participating in the general education classroom in the most effective way. By applying the information gained during the assessment process and the goals and objectives developed during the Individualized Education Program (IEP) meeting with the structure of the general education classroom, a thoughtful, effective program can be implemented. Figure 1 can be helpful in gathering and implementing all the pieces necessary for an effective instructional program.

The development of an appropriate instructional plan for the child is an important step to a planned and meaningful program.



Assessment has received significant attention within the current general education school restructuring effort in the context of outcomes-based education.

Assessment Strategies to Support Inclusive Schooling

Assessment has received significant attention within the current general education school restructuring effort in the context of outcomes-based education (Spady & Marshall, 1991), the establishment of national standards (O'Day & Smith, 1993), and performance-based and authentic assessment (Brown, 1994). The majority of the discussions in these arenas have not specifically related to students with disabilities, although associated restructuring efforts have indirectly had a positive impact on these students.

The purposes for assessing students with disabilities are at least threefold.

1. Educators must determine students' eligibility for special education services through the IEP process.
2. Educators must conduct ongoing assessments to determine how students are performing and to determine whether to eliminate or provide additional or different support.
3. Educators must evaluate students' performance, whether in relationship to grades, degree of achievement of IEP objectives, or other school or district measures.

Table 1 articulates the critical assumptions that must be made when designing assessment procedures and processes.

Table 1: Assumptions & Dispositions When Assessing Students

1. All students must be presumed to be competent.
2. Assessment should always yield information about students' strengths, gifts, and talents.
3. Assessments should yield information about students' instructional support needs, i.e., assessment should be designed to answer the following questions:
 - How can the learner best demonstrate what he/she knows?
 - How does the learner learn best?
 - What does the learner know?
 - What does the learner need to expand his/her learning?
 - How can educators better assist the learner?

Formal and norm-referenced assessments traditionally used to assess students who qualify for special education services are not based upon these assumptions. Alternative authentic assessment procedures, however, do provide teachers with a broader and deeper understanding of students (Falvey, Givner, & Kimm, 1996).

Authentic assessment strategies described next include:

- ▶ Making Action Plans (MAPs)
- ▶ Multiple intelligences assessment
- ▶ Curriculum-based assessment
- ▶ Functional assessment of behavior
- ▶ Counting occurrences of specific behavior
- ▶ Assessment strategies for young children

MAPs: A Futures Planning Process for Students

An extremely informative process for learning about students' strengths, needs, and interests is referred to as the "futures planning process" (Falvey, Forest, Pearpoint, & Rosenberg, 1994). Although a variety of different methods have been developed for planning for students' futures, one of the most commonly used processes is Making Action Plans (MAPs) (Falvey, et al., 1994; Forest & Lusthaus, 1989, 1990). This process calls for a friendly atmosphere where the student and others who are significant to him or her gather together to generate ideas for building a positive future for the student. In addition to the student, those people who are significant to him or her should include the people who have experience with the student, such as the student's extended family (e.g., parents, siblings, aunts, uncles, cousins, or grandparents) and friends. The MAPs process might also include those who have specific expertise to teach this student such as teachers (special and general education) or related service personnel (e.g., speech and language therapists, occupational therapists, or psychologists).

A MAPs gathering occurs in a friendly, relaxed, and supportive setting that is comfortable to the student and the family. A facilitator ensures that everyone participates and that the focus is on building a positive future for the student. A recorder ensures that all participant responses are documented during the gathering. Responses are recorded on large newsprint so that everyone has visual access to input as it is generated, respecting those who process visual information more easily than exclusively verbal input.

The facilitator asks everyone, especially the student, to respond to the eight questions listed in Table 2.

An extremely informative process for learning about students' strengths, needs, and interests is referred to as the "futures planning process."

Table 2: MAPs Questions

1. What is a MAP?
2. What is the student's history?
3. What are your dreams for this student?
4. What are your fears for this student?
5. Who is this student?
6. What are the student's strengths, gifts, and abilities?
7. What does the student need to reach the dreams and avoid the nightmares?
8. What would the student's ideal day look like and what must be done to make it happen?

Falvey, et al., 1994.

No definitive scientific ways exist to assess and measure students' multiple areas of intelligence.

The MAPs process provides the student and other participants a unique opportunity to examine and use the past and present to craft a path to the future. It also represents a major change in the way information is gathered and discussed.

The MAPs process can benefit any student. Let's take Valerie, for example. Valerie is a student with Down syndrome who, in preparation for her transition from elementary to middle school, invited her favorite classmates, family members, and friends to participate in a MAPs meeting. Before the meeting, her peers created posters about their own fears about transitioning to middle school. This information helped to generate dreams and fears for middle school for Valerie and her classmates. The MAPs meeting was important for building a successful middle school experience not only for Valerie, but also for her peers. The opportunity for Valerie's peers to participate in the MAPs process was a gift Valerie gave to them that day.

The outcome of this process is a plan of action that addresses how the student can be successfully included in his or her school and community. It also can be used as information to develop goals and objectives.

Multiple Intelligences Assessment

In 1983, Howard Gardner wrote *Frames of Mind*, a book in which he challenged traditional beliefs about the concept of intelligence. Gardner found intelligence to be multifaceted, requiring us to broaden our view of "who is smart." Traditional views of intelligence largely assess and recognize linguistic and logical/mathematical abilities as indicators of intelligence. Gardner expanded the indicators of "intelligent abilities" to include visual/spatial, musical, bodily/kinesthetic, interpersonal, intrapersonal, and, most recently, naturalistic abilities. His research concluded that intelligence had been defined too narrowly and had robbed many children and adults experiences to achieve at higher levels. The question that educators and psychologists had often struggled with was, "How smart is this student?" Gardner suggested that this is the wrong question to ask. Instead we should be asking, "How is the student smart?" This question presumes that all students are smart; they are just smart in different ways.

No definitive scientific ways exist to assess and measure students' multiple areas of intelligence. However, the following strategies can be used by educators and psychologists to develop a sense of students' strengths across the multiple intelligence areas listed in Table 3.

- ▶ *Provide students with opportunities to engage in activities using all eight areas of intelligence.* Teachers then can observe and make note of students' preferences and strengths while engaged in the different ways of learning.
- ▶ *Observe students during their free time.* This provides teachers with critical information about students' areas of intelligence. Generally, students gravitate toward activities in which they are able to use or show their strengths.
- ▶ *Observe, record, and reflect on the occasions when students behave in ways that are contrary to classroom norms or rules.* This also provides critical insight into students' preferred intelligences (Armstrong, 1994). For example, a student who often speaks out of turn may have strength in linguistic

intelligence, while a student who often looks out the window or “off in space” may be a visual/spatial learner. A student who is constantly in motion may be a bodily/kinesthetic learner.

- ▶ *Interviewing the students, their families, and their friends can provide important insights into students’ areas of strength.* Another way to determine students’ multiple intelligence strengths would be to complete a checklist. Checklists, such as the one presented in Table 3, can be combined with observations and interviews (Armstrong, 1994). A caution when using a checklist is to be sure it is not seen as a “test” that produces absolute, definitive information.

Information gained from multiple intelligence assessments is particularly useful when developing a student’s IEP and/or instructional program.

Table 3: Checklist of Multiple Intelligences

Area of Intelligence	Example Behaviors	Indicate Areas of Student's Strengths
Linguistic	Saying, hearing, seeing, telling, listening, writing, and reading	
Logical/Mathematical	Knowledge of math facts, problem-solving skills, experimentation, and games	
Visual/Spatial	Drawing, painting, and learning through images	
Bodily/Kinesthetic	Uses tactile images, moving to learn, patterns, and outdoor activities	
Musical	Sensitivity to and ability to use pitch, melody, rhythm, and tone	
Interpersonal	Interactions with others, empathetic, good mediator, and effective in cooperative groups	
Intrapersonal	Independent work, self-correcting, hobbies, and leisure activities	
Naturalistic	Learning through the environment, experiential learning, and learning through nature	

Having a variety of methods for obtaining information about students’ strengths in multiple intelligence areas is important for comprehensively monitoring students’ knowledge and skill acquisition as well as helping teachers to design instructional programs for students in “ways of knowing” that are most meaningful to them. Information gained from multiple intelligence assessments is particularly useful when developing a student’s IEP and/or instructional program. Using a student’s strengths and preferred learning style as a basis for deciding the types of interventions to use changes the focus from deficit-based to strength-based with the likelihood of successfully utilizing methods previously not attempted with that student. In addition, if multiple intelligences theory is implemented broadly in the general education classroom, the likelihood of children failing decreases as the needs of all students are being addressed.

Table 4 lists materials and strategies that can be used in each of the intelligences (adapted from Falvey, 1997).

Table 4: Strategies and Materials that Teach to Multiple Intelligences	
<p>Logical/Mathematical</p> <ul style="list-style-type: none"> Logical problem-solving exercises Classifications and categorizations Creating codes Logical puzzles and games Calculations and quantifications Scientific thinking Logical-sequential presentation of subject matter Socratic questioning 	<p>Bodily/Kinesthetic</p> <ul style="list-style-type: none"> Hands-on thinking, manipulatives Classroom theater Competitive and cooperative games Crafts Cooking, gardening, other hands-on activities Physical awareness exercises Using body language and hand signals to communicate
<p>Spatial</p> <ul style="list-style-type: none"> Charts, graphics, diagrams, and maps Visualization Videos, slides, and movies Photography Visual puzzles and mazes Construction Painting, collage, ceramics, etc. Art appreciation Idea sketching Color cues Visual awareness and visual literacy activities Creation of graphic symbols 	<p>Interpersonal</p> <ul style="list-style-type: none"> Conflict mediation Peer- or cross-age teaching Board games Cooperative groups Academic clubs Brainstorming sessions Peer sharing, conferencing
<p>Musical</p> <ul style="list-style-type: none"> Musical concepts, singing, humming, whistling Playing instruments Playing recorded music Group singing Rhythms, raps, chants Linking tunes with concepts Mood music 	<p>Intrapersonal</p> <ul style="list-style-type: none"> Independent study Self-paced project or instruction Reflection periods Interest centers Personal journals Goal-setting sessions Self-esteem activities Private work spaces
<p>Naturalist</p> <ul style="list-style-type: none"> Classify wildlife Distinguish between species through observation Observe animals in natural habitats Notice relationships in nature 	<p>Linguistic</p> <ul style="list-style-type: none"> Lectures Small and large group discussions Reading of all types Word games, storytelling, debates, journals

Curriculum-Based Assessment

Curriculum-based assessment (CBA) is often overlooked as a method for obtaining critical information about the strengths and needs of students with disabilities. CBAs are designed to provide individualized, direct, and specific information about students' knowledge and understanding, progress, and instructional needs with regards to the core curriculum (Salend, 1998). CBAs can yield information to help teachers figure out what, when, and where adaptations or accommodations may be needed for a student to actively participate in the learning process. CBAs, therefore, are very useful in determining how to include students with IEPs in general education curriculum objectives.

Unfortunately, many students with disabilities (particularly those with severe disabilities) historically have had alternative curricula or limited access to the core general education curriculum and CBAs based upon that curriculum. With the 1997 reauthorization of the Individuals with Disabilities Education Act (IDEA), schools now are required to include students with disabilities in routine, schoolwide, districtwide, and statewide assessments unless otherwise specified in the IEP. Further, the goals and objectives of a student's IEP are to be related to the general education curriculum. So, it is reasonable to expect that many more students will experience and benefit from CBA as an assessment approach.

When conducting a CBA, teachers can offer students a variety of ways to demonstrate their knowledge so the assessment format or method need not get in the way of students being able to communicate what they know. Suppose that in a science class a CBA is used to measure students' knowledge of the circulatory system through a graphic that includes blanks in which students are to indicate various circulatory parts. For some students, the teacher can alter the response form (i.e., graphic with blanks) and ask them to name or point to the correct labels for the circulatory system. Students with limited literacy skills then would be able to show their knowledge in ways that are not literacy dependent. Applying multiple intelligences theory to CBA further suggests ways for students to "show their knowing."

Another term used to describe curriculum-based assessment is standards-based assessment. Standards imply that a community has agreed upon information that each student will acquire at different grade levels. These standards assist teachers to systematically target instruction so that (a) the skills the student acquires are developmentally appropriate and (b) students have the necessary prerequisite skills.

Functional Assessment of Behavior

The support necessary for students with disabilities in general education classrooms often includes strategies to address "rule violating" behaviors and to teach acceptable social behavior. Two critical assumptions related to assessing problem behavior are:

1. The behavior serves a legitimate function or purpose for the student (even though the form of the behavior to achieve this purpose is unacceptable).

Curriculum-based assessment (CBA) is often overlooked as a method for obtaining critical information about the strengths and needs of students with disabilities.

It is important to know how often a behavior is occurring in order to plan interventions and to have a baseline of the frequency of behaviors prior to implementation of any interventions.

2. Problem behavior is context specific and thus likely to vary across situations. When students engage in “rule violating behaviors,” a functional assessment of the behavior(s) helps to determine the function or purpose that the behavior serves for the student.

For example, an assessment of Jose, who pushes other students, may reveal that he has few other behaviors in his repertoire to initiate interactions with peers. This suggests that one function of pushing may be to engage interaction. A functional assessment determines the relationship between the student’s behavior and the situations or settings in which the behavior occurs by gathering assessment information across time and settings and from a variety of sources (e.g., student observations, interviews of current and past teachers and parents, or student interview). For Jose, the assessment would include examining when the pushing behavior occurs, who is present, what activities are going on, and what happens following the behavior (consequence) (O’Neil, Horner, Albin, Sprague, Story, & Newton, 1997).

Given reliable and comprehensive functional assessment information from various sources, it is possible to develop hypothesis statements about the function of the behavior. A hypothesis statement for Jose might be as follows: “When in a social situation (e.g., playground, waiting in line), Jose will push another student to start a conversation or gain entrance to the kickball game.” Once the function of the behavior is determined, it is fairly easy to identify an alternative or replacement behavior for the problem behavior. Jose could learn to verbalize, sign, or show a picture, rather than push, to initiate a conversation or be included in a game.

Behavior interventions often are ineffective due to a lack of, or inaccurate, functional assessments. If Jose was pushing other students for the purpose of gaining more personal space or saying, “Get out of my face!” rather than starting a conversation, an intervention designed to increase interaction or intimacy could have disastrous results. Therefore, a thorough functional assessment is critical wherever persistent and serious problem behavior occurs.

Counting Occurrences of Specific Behavior

It is important to know how often a behavior is occurring in order to plan interventions and to have a baseline of the frequency of behaviors prior to implementation of any interventions. One method of counting behavior is frequency data, which entails recording the number of times a particular behavior occurs. When collecting frequency data, it is important to collect data at the same time each day. It is also important that the student has the same opportunity daily to engage in the behavior being observed to allow for comparisons to be made across time. Frequency data might involve recording the number of times a student initiates an interaction with peers, or the number of times another student throws books or other materials on the floor. Frequency data can also be used to record progress related to academic goals, such as the number of times a student is able to correctly read words involving “p” and “b” or the number of English and Spanish words a student who is developing the ability to speak English uses throughout his or her day (see Table 5 for these examples).

Table 5. : Frequency Data Collection Forms

Table 5. : Frequency Data Collection Forms					
Student: Ivan Petra			Date: <i>May 24, 1998</i>		
Frequency of Throwing Materials on Floor					
<i>Language Arts</i>	<i>Social Studies</i>	<i>Science</i>	<i>Math</i>	<i>Art</i>	<i>Music</i>
✓✓✓✓		✓✓	✓✓✓✓✓✓		✓✓
Student: Jamal Davis			Date: <i>April 24, 1998</i>		
Frequency of Initiations					
<i>Arrival</i>	<i>Classroom Discussions</i>	<i>Cooperative Groups</i>	<i>Recess</i>	<i>Lunch</i>	<i>P.E.</i>
✓✓	✓	✓✓✓	✓✓	✓✓✓✓	✓✓
Student: Sara Morales			Date: <i>March 25, 1998</i>		
Frequency of Correctly Reading "p" and "b"					
<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Total for week</i>
✓✓✓✓✓	✓✓	✓✓✓✓✓✓✓✓	✓✓✓✓✓✓	✓✓✓✓	25
Student: Carolina Fajardo			Date: <i>December 1, 1997</i>		
Frequency of English and Spanish Words Used					
<i>Arrival</i>	<i>Classroom Discussions</i>	<i>Cooperative Groups</i>	<i>Recess</i>	<i>Lunch</i>	<i>P.E.</i>
Spanish	Spanish	Spanish	Spanish	Spanish	Spanish
✓✓		✓	✓✓✓✓✓✓✓✓	✓✓✓✓✓✓✓✓	✓✓✓
English	English	English	English	English	English
✓✓✓✓	✓✓✓✓✓✓	✓✓✓✓✓✓		✓✓✓	✓✓✓✓✓✓

When the opportunity for the student behavior to occur is contingent upon an event or behavior of another person, percent data is required. Percent data is collected by recording both the opportunity and the student response to the opportunity. This type of data is useful for determining such behaviors as the percent of student responses to peer initiations, student compliance to teacher directions, student reactions to being insulted or "dissed" on the playground, and student responses to teacher questions to the class by raising his or her hand rather than shouting out the answer.

When we are assessing the amount of time a student engages in a behavior, duration recording is required. Duration recording is done by noting when the behavior begins and ends. For example, duration data would be collected to determine if there is an increase in the amount of time the student stays in his or her seat, remains "on task" or participates in an activity.

Assessment is an essential part of developmentally appropriate services for young children with disabilities.

Assessment Strategies for Young Children

Many of the previously described strategies are also appropriate for assessing young children, but there are also some unique strategies to consider when working with young children. Assessment is an essential part of developmentally appropriate services for young children with disabilities. Developmentally appropriate practices, which are widely accepted instructional practices in early childhood programs, focus on the individual needs and characteristics of each child. Therefore, an appropriate and complete assessment assists in individual student and program planning to better identify the needs of each child. To accomplish this, multiple assessments are necessary and are best carried out by a team of qualified professionals who can gather a wide range of assessment information that will be used to make decisions concerning an individual child's eligibility for special education services and an ongoing educational program. The child's family must be an equal decision-making partner in the process.

Due to the many difficulties that can arise when assessing young children, the following assessment guidelines, modified from the work of Cavallaro and Haney (1999), are offered for developmentally appropriate assessment:

- ▶ Professionals must be skilled at eliciting desired behaviors and understanding the many variables that can interfere with a child's performance of those behaviors.
- ▶ Assessment must include multiple sources of information gathered through many different methods.
- ▶ Assessment sources must be reliable and valid.
- ▶ Assessment must include a child's family, both as an important source of information about the child and as a member of the team when assessment decisions are made.
- ▶ Assessment must consider the whole child.
- ▶ Assessment must be conducted across time and environments.
- ▶ Assessment must be connected to potential outcomes.
- ▶ Assessment decisions should be made by a team that includes the child's family.

Informal observations are frequently used in early education to provide useful information for educational programming decisions. These informal assessment techniques (Cavallaro & Haney, 1999) include:

- ▶ Ecological assessment, where a child's skills are examined in relationship to the context in which they are needed.
- ▶ Play-based assessment, in which a child's development is examined during naturally occurring activities.
- ▶ Family-focused assessment, where a child's needs are determined and addressed in terms of family concerns and priorities.

Ongoing informal assessment provides useful information to assist in program planning, developmentally appropriate activities, selecting materials, and determining the most appropriate approaches to use with a particular child.

Outcome of Assessment

As previously stated, the purpose of assessment is to determine eligibility, define individual student program and instructional needs, and monitor student progress. The assessment techniques described here, both formal and informal, should be included as a part of each of these purposes. The outcome of assessment is both a snapshot of the student at a particular point in time and an ongoing, updated comprehensive picture of a student that identifies the student's unique abilities and needs. These "pictures" should be used to assist in planning a comprehensive, integrative plan for not only what is going to be taught but how it is going to be taught to meet the student's unique needs.

