Assessment plays a foundational role in special education. Students with disabilities are complex learners who have unique needs that exist alongside their strengths. Effective special education teachers have to fully understand those strengths and needs. Thus, these teachers are knowledgeable regarding assessment and are skilled in using and interpreting data. This includes formal, standardized assessments that are used in identifying students for special education services, developing students’ individualized education programs (IEPs), and informing ongoing services. Formal assessments such as statewide exams also provide data regarding whether students with disabilities are achieving state content standards and how their academic progress compares to students without disabilities. Teachers are also knowledgeable about and skillful in using informal assessments, such as those used to evaluate students’ academic, behavioral, and functional strengths and needs. These assessments are used to develop students’ IEPs, design and evaluate instruction, and monitor student progress. As reflective practitioners, special educators also continuously analyze the effect and effectiveness of their own instruction. Finally, these teachers are knowledgeable regarding how context, culture, language, and poverty might influence student performance; navigating conversations with families and other stakeholders; and choosing appropriate assessments given each student’s profile. This is an especially important consideration, given the overrepresentation of culturally and linguistically diverse students and those from high poverty backgrounds in special education.
Students with disabilities present a wide range of both strengths and needs, in a variety of areas (e.g., academic, social, emotional, adaptive and organizational, communication)—which must be understood in order to develop instruction specially designed to meet their needs. Their varied needs are most often the result of problems with attention, memory, language, emotional regulation, social regulation, and motivation due to repeated failure (Vaughn & Bos, 2014), and these underlying needs can interfere with their ability to achieve successful outcomes. There is evidence in the field of learning disabilities that performance on specific language and cognitive variables (e.g., phonological awareness, rapid letter naming, oral language skills, morphological awareness) can be used to identify students who need the most intensive, ongoing intervention (e.g., Al Otaiba & Fuchs, 2006; Fletcher et al., 2011; D. Fuchs et al., 2012). Further, response to instruction in reading and mathematics remains one of the strongest predictors of future performance (Katz, Stone, Carlisle, Corey, & Zeng, 2008; Vaughn, Linan-Thompson, & Hickman, 2003).

Environmental factors can play a role in student learning and behavior. Culture, language, and family poverty (along with teachers’ response to these factors) can influence students’ behavior and learning (Hammer et al., 2012; Judge & Bell, 2010; Samson & Lesaux, 2009). The instructional environment also can affect what students are learning. Well organized environments where student needs are supported positively influences students’ learning and behavior (Murray & Greenburg, 2006).
Findings from research on individual learner characteristics, response to instruction, and the role of environmental factors in student learning suggest that special education teachers need to develop comprehensive learner profiles. These profiles should delineate students’ strengths and needs, describe how culture and language might be influencing a student’s performance, contain information about students’ instructional environments, and show how students are responding to instruction. A comprehensive learner profile, continually revised based on instructional and behavioral data, is essential to develop, implement, evaluate, and revise instruction in ways that are sensitive to individual students’ strengths and needs.

To develop a learner profile, special education teachers need to collect, over time, information from a variety of sources and synthesize that information in order to develop a comprehensive understanding of the student. These sources include but are not limited to:

- comprehensive, multidisciplinary assessments that produce information about cognitive and language variables;
- discussions with students’ family members that provide information about students’ interests and motivations and how they adapt to their home and community environment;
- curriculum-based measurement data that can be used to provide information about student progress in different curricular areas (Deno, Fuchs, Marston, & Shin, 2001);
- student interviews and surveys that generate data about students’ interests in an academic area and their strategic approach to tasks (Montague, 1996);
- Inventories, classroom checklists, and student work samples that can be used to help teachers understand students’ strengths and needs in an academic area (e.g., Leslie & Caldwell, 2015); and
- direct observation of classroom performance and behavior (e.g., functional behavioral assessment) that can be used to help teachers gather information such as how students perform a task and how students respond to different behavior and learning supports.

As special education teachers collect information, they need to look for and interpret patterns in the data, as this will help them to synthesize the information they are collecting and to use the collected data for educational decision making. The synthesis of information can be used to develop a comprehensive profile of the individual student’s strengths, needs, interests, and motivation in different areas, both academic and nonacademic. Understandings gained from these individual profiles can be used to communicate with professionals and parents in order to develop a team-based approach to the education of students with disabilities—one where information is used continually to design, evaluate, and revise instruction.
Research and Policy Support

The need to develop comprehensive learning profiles for students with disabilities is founded in research on assessment and effective special education teachers as well as the law governing the education of students with disabilities. Research on the limitations of standardized tests; the promise of formative, ongoing curricular and behavioral assessments; and the knowledge effective special education teachers have about students with disabilities suggests that teachers need rich information about students if they are going to respond effectively to their needs. In special education practice, the need for rich data—provided from the array of people involved in the student’s education—arises from concerns about standardized, norm-referenced assessments. These assessments only provide a snapshot of how students perform in comparison to other students; they do not provide the specific information teachers need to develop interventions or assess their effectiveness (Caffrey, Fuchs, & Fuchs, 2008; Fuchs et al., 2008).

To be effective, special education teachers need data that helps them understand how students are learning and behaving in classrooms and schools. A robust research base exists that demonstrates the powerful role that ongoing collection of student achievement and behavioral data, or more formative assessments, can play in making instructional decisions about students (Stecker, Fuchs, & Fuchs, 2005). Teachers who frequently collect and analyze curriculum-relevant data are able to adapt and modify their instruction in ways that promote the learning of students with disabilities.

Studies of effective special education teachers have shown that they have a deep knowledge of students and how their students are learning in a particular area. These teachers are able to describe their students’ academic, behavioral, and motivational needs in great detail (see Bishop, Brownell, Klingner, Leko, & Galman, 2010; Seo, Brownell, Bishop, & Dingle, 2008). They are careful observers of student behavior, provide skillful classroom management to support students’ learning, and are able to engage in strategies that motivate their students to engage in instruction (Bishop et al, 2010; Brownell et al., 2014; Seo, 2006; Seo et al., 2008). Further, in two quantitative studies of special education teachers (Brownell et al., 2007, 2009), researchers showed that special education teachers with deep knowledge of content and of how students learn content are more effective in their ability to provide decoding and fluency instruction.

The Individuals With Disabilities Education Act (IDEA, 2006) requires that comprehensive evaluations of students with disabilities use a variety of assessment tools and strategies to develop an adequate
picture of a student’s strengths and needs (IDEA regulations, 2012, 34 C.F.R. § 300.304[b]; Center for Parent Information and Resources, 2014). Further, this evaluation must be multidisciplinary (The National Dissemination Center for Children with Disabilities, n.d.). Parents, special education teachers, and other professionals (e.g., general education teachers, related service personnel) involved in the education of the student must contribute to the evaluation of the student.

Conclusion

Although both general and special education teachers need to develop assessment literacy and have an understanding of students’ strengths, needs and interests, special education teachers are in the best position to develop a comprehensive learner profile for individual students. Special education teachers often have the most contact with students with disabilities, their families, and other professionals involved in the assessment of these students, and consequently are able to gather more comprehensive information about students from these different sources. In addition, the special education teacher is often the team member who provides the most intensive, small-group instruction to students with disabilities, and thus has an opportunity to know students in greater depth than a general education teacher might. To develop a comprehensive learner profile, effective special education teachers need to understand the different types of assessment tools available to them, and how to use those tools and the information generated from them to help the educational team design, implement, evaluate and revise programs that meet the individual needs of students with disabilities and allow them access to the general education curriculum.
IDEA recognizes the important role that a team plays in the evaluation of students and their ongoing education. One of the central components of providing services for students with disabilities is convening a team of stakeholders that includes key professionals and family members to collaboratively create an IEP (Council for Exceptional Children, n.d.). A high-quality IEP is the primary mechanism to individualize and assist students with disabilities in making progress. The special education teacher’s role as a team member is to consider the student’s strengths and needs based on assessment information and work collaboratively with the entire team to design an educational plan that, when implemented, will produce maximum benefit for the student. Because implementation and assessment of the educational plan are ongoing, special education teachers need to be able to interpret and communicate assessment results regularly with other teachers, staff, and families as part of the effort to monitor a student’s response to instruction.

The first step in this process is to gather the assessment information and make it available to the IEP team, communicating the results in a format that is easily understood by all team members. For some team members, assessment data may need to be interpreted with regard to its importance to developing goals, choosing appropriate accommodations and modifications, and identifying fair grading practices. Research indicates that parents often feel overwhelmed and anxious at IEP meetings, and family members have reported they understand none or only some of the information presented at the IEP meeting (Hammond, Ingalls, & Trussell, 2008). When parents are involved in the assessment process from the start they are better able to understand the purposes of the assessments and the results. In addition, parental involvement in the assessment process encourages con-
sideration of culture and language factors and the role they may play in interpreting assessment results. Understanding the assessment challenges of students from culturally and linguistically diverse backgrounds is vital because this population of students is disproportionately represented in special education (see Abedi, 2006; Chu & Flores, 2011; Linn & Hemmer, 2011; U.S. Department of Education, 2016; Zhang & Katsiyannis, 2002). Special education teachers must take an active role in communicating assessment data and gauging the understanding of all team members, paying particular attention to families’ understandings.

Assessment results that are based on parental input encourage respectful treatment of families and values their expertise (Fish, 2008; Wolfe & Duran, 2013). Parents provide insights about their child, as well as discuss the goals they have for their child and what they hope the school can do to best support their child. Providing families with information about assessment data prior to eligibility and IEP meetings can help families prepare for team meetings, allowing them to generate questions they may have and alleviating feelings of being overwhelmed and having too much information to understand (Lo, 2008; Wolfe & Duran, 2013). The special education teacher may also serve as an advocate for the family. During meetings with the team, it is often the special education teacher’s responsibility to make sure that assessment data are presented in clear and understandable terms and that all team members have time to ask questions and describe supports that they believe would be important for the student.

Finally, special education teachers are tasked with communicating initial and ongoing assessment data with other teachers and support staff. Students’ IEPs are continually revised based on assessment data. Teachers and staff use assessment data to understand if interventions are effective and adjust instruction accordingly.

Policy and Research Support

According to federal regulations, IEP teams must include (a) parents; (b) at least one general education teacher; (c) at least one special education teacher; (d) a representative of the local education agency (typically an administrator); (e) someone who can interpret the instructional implications of evaluation results (can be one of the other listed members); (f) other individuals with expertise about the child; and, (g) when appropriate, the child (34 C.F.R. § 300.347[a][1]). The IDEA regulations also require that the IEP for a child with a disability include a statement of the child’s current levels of educational performance (academic and behavioral). For an IEP team to accurately define this, the team must use relevant assessment data.

Providing families with information about assessment data prior to eligibility and IEP meetings can help families prepare for team meetings.
IDEA also stipulates that cultural and linguistic factors must be taken into consideration by the IEP team during assessment and interpretation of data (34 C.F.R. § 300.306[b][1]). Research has established that culturally and linguistically diverse students are frequently misidentified as having a disability (e.g., Rinaldi & Sampson, 2008; Samson & Lesaux, 2009). For example, it is often challenging to determine whether a student’s difficulties are due to English acquisition or a learning disability, because students with these difficulties often display similar characteristics (Collier, 2011; Orosco & Klinger, 2010).

The assessment process must include the family’s description of its resources, priorities, and concerns related to enhancing the child’s development. This establishes assessment as family-directed and assists in ensuring that services take culture and language into account. After the appropriate administration of assessments, special education teachers review and communicate with other IEP team members the patterns of student strengths and needs and gain consensus from multiple stakeholders (e.g., parents, general education teachers, target students; Collier, 2011; Ortiz & Artiles, 2010). When necessary and appropriate, other professionals (e.g., English language learner teacher, bilingual evaluator) should join the IEP team to provide assistance with communicating and interpreting assessment results. In addition, special education teachers should encourage parental and, as appropriate, student collaboration. Families and the students themselves know their cultural and linguistic practices best and can educate the team regarding these practices (Barnard-Brak & Lechtenberger, 2009; Scott, Hauerwas, & Brown, 2014).

Research suggests that involving parents in the IEP process holds the potential for improving implementation and student outcomes. One way that parents demonstrate support of their children’s education is by attending IEP meetings and volunteering. Children whose families are more involved show a variety of more positive outcomes than children with less family involvement, including (a) better grades, (b) more involvement in organized groups, and (c) more involvement in postschool employment (Newman, 2005; Test et al., 2009). Some evidence also indicates a positive association between students with disabilities participating in IEP meetings and their academic outcomes (Barnard-Brak & Lechtenberger, 2009).

**Conclusion**

Policy mandates the members of all IEP teams and factors that should be considered when assessing and interpreting the results of assessments of culturally and linguistically diverse students. However, the characteristics of each IEP team, along with the assessment data for each child, are unique. The special education teacher has a pivotal role in helping all members of the IEP team to understand assessment data. Such data provide the foundation for determining appropriate educational services for students with disabilities. Ongoing communication of assessment results assists with implementing effective IEPs and ensuring desirable outcomes for students with disabilities.
Special education teachers identify effective instructional and behavioral practices to address the needs of individual students. Although these practices may be evidence-based or widely considered effective, the special education teacher recognizes that no single practice will be effective for every student. To determine the effect of instructional practices, special education teachers make instructional decisions based on data related to student progress toward well-defined goals. This type of formative assessment is “a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students’ achievement of intended instructional outcomes” (McManus, 2008, p. 3).

Formative assessment requires collecting data from a range of sources (e.g., curriculum-based measures, informal classroom assessments, observation of classroom performance, self-assessment of classroom instruction; Popham, 2008)—and using these data to inform a cycle of continuous improvement (What Works Clearinghouse [WWC], 2009b). This cycle includes (a) collecting a variety of data regarding student learning from valid sources, (b) interpreting the data to determine the effectiveness of instruction, (c) developing alternative instructional approaches as necessary, (d) modifying instruction, and (f) continuing the cycle by collecting additional data to determine the effectiveness of the instructional change. To improve student achievement, formative assessment data may be used to make instructional changes such as:

- prioritizing the use of instructional time to increase student opportunities to learn,
• providing additional instruction for students who are struggling to learn particular content,
• modifying delivery strategies,
• refining instruction, and
• determining if the curriculum needs to be adapted based on student strengths and weaknesses after examining grade level or schoolwide data (WWC, 2009b).

Research and Policy Support

The accountability for student achievement that was mandated in the No Child Left Behind Act of 2001 (now Every Student Succeeds Act) resulted in increased attention to assessment for instructional decision making on the part of teachers, school administrators, policy makers, and researchers. These professionals thus anticipated that “results from formative assessments could provide timely and descriptive information about students to help teachers plan for and deliver effective individualized instruction” (Gallagher & Worth, 2008, p. 1). Although there is no national policy mandate related to formative assessment, several states have policies or provide program guidance related to the use of formative assessment to improve instructional outcomes (Gallagher & Worth, 2008). Further, the U.S. Department of Education encourages local schools to use data for continuous improvement (Mandinach & Gummer, 2013), and formative assessment was one of the four pillars of the Race to the Top initiative (U.S. Department of Education, 2009).

Research evidence to support the use of formative assessment or a cycle of instructional improvement has been provided primarily by qualitative and descriptive studies, and is characterized as “low” by the Institute of Education Sciences (WWC, 2009b). However, researchers (e.g., Mandinach & Gummer, 2013) have supported the use of formative assessment as a logical and pragmatic approach to continuous improvement that leads to more effective instructional practices. A primary difficulty that arises when addressing the effectiveness of formative assessment relates to the fact that this process is not an instructional intervention, and is only effective when coupled with sound instructional decision making and effective interventions that are derived from a cycle of instructional improvement. Formative data can be used to guide instructional decision making toward more effective instructional strategies for students who are struggling with academic content. Examples of effective instructional strategies include direct instruction, strategy instruction, student feedback, reciprocal teaching, and peer tutoring (Hattie, 2008).

Researchers have noted that a critical issue with formative assessment is the appropriate use of data to guide instructional decisions (Coburn & Turner, 2012; Waldron, Parker, & McLeskey, 2014; WWC, 2009b).
Although there is a dearth of research on the use of schoolwide data systems that are used for all grade levels and academic areas, research has been conducted on the use of data to guide instruction for students with disabilities and others who struggle to learn in elementary schools as part of multitiered systems of support (MTSS; L. Fuchs & Vaughn, 2012; Lembke & Stecker, 2007; Shapiro, Zigrand, Wallace, & Marston, 2011; Stecker et al., 2005; WWC, 2009a). Research has shown that such data systems are often part of schools that are effective and inclusive (Hehir & Katzmann, 2012; McLeskey, Waldron, & Redd, 2014).

A WWC report (2009b) noted that teachers are often asked to use student data without guidance regarding how this should be done. To address this need, school administrators should:

• provide a school-based facilitator who meets with teachers and teacher teams to discuss the systematic use of data for instructional decision making and provides professional development (including coaching) for teachers,
• provide structured time for teachers to collaborate related to data use and instructional decision making, and
• ensure that targeted professional development is regularly provided based on teacher needs to improve data literacy and data use. (WWC, 2009b)

These recommendations have been supported and extended by those involved in using data as part of MTSS (e.g., Stecker et al., 2005; WWC, 2009a). For example, decision-making rules should be used for interpreting curriculum-based measurement data to support teachers in making instructional decisions. In addition, research related to MTSS has revealed that teachers benefit from instructional consultation from knowledgeable consultants or computerized systems to improve the quantity and quality of instructional changes that lead to improved student outcomes.

**Conclusion**

Although research support for the use of formative assessment or a cycle of continuous improvement of instruction has been characterized as “low” by the Institute of Education Sciences, many individual studies support the use of assessment data as part of a data-based decision making framework to improve instruction. This is especially the case when teachers are working with students with unique educational needs.
References


Caffrey, Fuchs, & Fuchs, 2008; Fuchs et al., 2008


IDEA regulations, 34 C.F.R. § 300 (2012).


