RESOURCES

Importance of Classroom Management: Effective Teaching, Behavior Management and Classroom Climate

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CLASSROOM MANAGEMENT: PREVENTIVE STRATEGIES

By Patricia Kyle, PhD, University of Idaho; &
Larry Rogien, PhD, Boise State University

National Association of School Psychologists

Classroom management requires an orchestration of effective teaching, proactive preventive strategies, practical corrective strategies, and positive supportive techniques. This approach helps teachers motivate students through active involment in their own learning *and* discipline processes with the goals of acquiring learning, self-management, and a repertoire of responsible behaviors. When these components are integrated in your classroom, effective teaching, management, and discipline complement each other to facilitate learning. This handout deals with *preventive strategies* in comprehensive classroom management.

Preventive Component

Long-term prevention strategies are the glue that holds the classroom management plan together. Planning and designing the class ahead of time to eliminate problems is an essential step to long-term success. Focusing on implementing management strategies in the first week of school comes next. Active involvement of the students in the process is critical. Continually maintaining and re-evaluating the management approach is also needed. When the appropriate PACE is set in the classroom, problems are prevented through having proactive options, accountability options, choices for students, and environment options.

Preventing problems before they occur is important to a comprehensive approach. As important as corrective strategies for the moment of misbehavior are, they are short-term solutions only. Without prevention strategies we are caught in an endless cycle of short-term solutions for the immediate situation. Establishing classroom rules, procedures, and accountability are the initial steps toward establishing the PACE in the classroom. The prevention component is essential to having long-lasting results.

The prevention component will not completely eliminate classroom problems, but it will surely make a difference in how many day-to-day discipline problems come up where we need to rely on our corrective interventions for the moment of misbehavior. Setting the PACE focuses on the main aspects of prevention.

Proactive options. Plan, organize, and design the class at the beginning, so that you are being proactive and not reactive. Planning and preparing reaps many benefits. You manage your lessons so that things run smoothly with little down time. You clarify expectations of all with the students.

Accountability options. Plan, organize, and design how you will hold students accountable for their learning tasks. How will you structure things so that students can be successful in your class? What standards (how well something has to be done) will you set for their work? The challenge is to manage student work so you and the students can keep track of it. Decide what to do about missed work. Plan techniques to have all students responding simultaneously at times. This will assist you in checking if they all understand the learning.

Choices. Involve students in appropriate curriculum decisions so they feel ownership of what they are learning. Provide them with structured choices as to how they do their assignments, which assignments they may choose from a list of potential assignments, or a combination of the two. Student choice also applies to setting the environment.

Environment options. Create a classroom climate conducive to learning. It needs to be predetermined, taught to the students, and jointly constructed, adopted, and maintained. Establishing the environment includes:

- Rules/code of conduct
- Procedures

- Arranging the room
- Working the room

When you put all four together—proactive options, accountability options, choices, and environment options—to set the PACE in your classroom, you have a well-developed prevention component. You avoid many problems before they even develop. You need to use less of the corrective intervention strategies for the moment of misbehavior.

Proactive Options

Planning and preparing to prevent problems. This means:

- Have materials ready.
- Develop procedures to pass out materials.
- Develop routines to deal with non-instructional tasks, such as attendance, lunch count, or book money.
- Develop procedures to deal with interruptions.

Preventive lesson management. It is important to:

- Develop "withitness," an atmosphere in which the students feel that you are on top of the situation in the classroom. Teachers who are "withit" are aware of what is going on and deal with situations in a timely manner.
- Manage your lessons well, so you are keeping things moving smoothly from one part of a lesson to the next

Clarify expectations with the students. Clarifying expectations *with* the students rather than *to* the students creates a situation where you and your students are working together.

Accountability Options

Structure for student success. Design your accountability procedures with bringing about student success in learning as the main goal.

Manage student work. How will you:

- Set standards to guide students in succeeding
- Post assignments
- Collect and hand back student work
- Keep track of completed assignments
- Help students keep track of their own work in progress
- Hold students accountable for missing work
- Inform students who have been absent about assignments
- Give feedback to the students
- Help students self-manage

Simultaneous response modes. These options involve all students giving responses to questions at the same time in order to continually check their understanding of concepts and to keep them focused on the lesson:

- Choral responses, where all of the students answer in unison
- Individual whiteboards, where the students write down their answer and hold it up for you to visually see
- Whole class signals such as thumbs up and thumbs down or other appropriate gestures

Choices

Student involvement in curriculum choices. Having students involved in appropriate curriculum choices is a great way to get students actively engaged in the learning process. For example, "appropriate" can be choosing the order in a list of topics in social studies or choosing which activities students will like to do in the process of meeting standards.

Structured choices in assignments. Giving students choices in how they do their assignments is another critical strategy for preventing classroom problems. When students have a choice of two or three ways in which they can do their assignments, they are much less apt to choose not to do their assignments.

Environment Options

Conducive classroom climate. Options are:

- Pre-planned
- Constructed jointly between teacher and students, adopted and taught

Rules or code of conduct that establish a learning environment. Guidelines include:

- Three to eight rules
- Focus on the positive
- Understandable, reasonable, and attainable
- Posted in classroom
- Student involvement
- Consistency with school rules
- Support of effective learning principles

Procedures. Effective managers have procedures for the following:

- Entering and leaving the room

- Beginning and ending the day or period
- Getting students' attention
- Student interaction
- Using areas of the room: drinking fountain, pencil sharpener, supply shelves, and centers
- Bathroom use
- Working individually and together
- Obtaining help
- What to do when finished
- Taking care of the room: class responsibilities
- Interruptions
- Missing materials
- Using areas of the school

Arranging the room. There are six things to keep in mind:

- Visibility
- Accountability
- Communicability
- Understandability
- Usability
- Movability

Working the room. Move around interacting with students and monitor what they are doing. The more you use proximity in this way, the more on top of the situation you will be, and the more "withitness" you will have.

Resources

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CLASSROOM MANAGEMENT: SUPPORTIVE STRATEGIES

By Patricia Kyle, PhD, University of Idaho; &
Larry Rogien, PhD, Boise State University

National Association of School Psychologists

Classroom management requires an orchestration of effective teaching, proactive preventive strategies, practical corrective strategies, and positive supportive techniques. This approach helps teachers motivate students through active involment in their own learning *and* discipline processes with the goals of acquiring learning, self-management, and a repertoire of responsible behaviors. When these components are integrated in your classroom, effective teaching, management, and discipline complement each other to facilitate learning. This handout deals with *supportive strategies* in comprehensive classroom management.

Promoting and Teaching Responsible Behavior

The supportive component of classroom management focuses on promoting and teaching responsible behavior. When students are acting responsibly, it directly affects teaching: Students are more responsive, there are fewer distractions, and there is more cooperation. The supportive strategies focus on positive behavior, resulting in less need for corrective interventions.

The entire discipline and management program should be part of the process of teaching responsible behavior. Students learn from observing what teachers do and how they interact with their students, leading to an effective discipline system. The more teachers share with students the discipline strategies and their purpose and rationale, the more effectively the students will learn responsible behaviors.

Helping students to learn RESPECT for themselves, for other people in their communities, and for property becomes a pivotal feature of this comprehensive management approach. Giving students the support they need to choose appropriate behavior is vital to long-term success. Teaching responsible behavior, establishing classroom harmony, and actively involving students in the discipline process are keys to going beyond the immediate situation, resulting in desirable prosocial behaviors. Eliciting parent cooperation is an essential element to support students in choosing alternative behaviors to disruption. Infusing encouragement strategies throughout all aspects of the classroom is an on-going need. Helping students feel capable of performing classroom tasks supports learning. Positive teacher/student relationships form the foundation for classroom RESPECT.

Responsible Behaviors Intentionally Taught

The following list presents behaviors that teachers can teach intentionally to help create a supportive classroom environment. Teachers can partner with school psychologists, counselors, and parents to present a multifaceted approach for all students, and especially for certain students that need more intensive intervention.

- Character development
- Communication skills
- Social skills
- Anger management
- Conflict resolution
- Responsibility for ones' actions
- Self-control skills
- Decision-making skills
- Emotional intelligence development

Establishing Classroom Harmony

The second supportive option focuses on establishing a warm, supportive environment that has everyone feeling they are an important part of the class. The feelings of "our class" and the "learning community" are created through class building activities, team building activities, and class meetings. When students perceive that they are *valued* by teachers and other students, *included* in classroom activities, *accepted* in their classroom and school, have a sense of *belonging* to cooperative groups, and are *listened* to and *encouraged* by the adults in their lives, they develop respect for themselves and the authority figures in their lives.

- Valued
- Included
- Accepted
- Belonging
- Listened to
- Encouraged

Student Involvement

The third supportive option focuses on empowering students in helping them feel ownership of the class through active involvement in the discipline process. Student involvement helps students be part of the solution rather than part of the problem. Involvement activities include:

- Classroom responsibilities
- Study buddies
- Homework buddies
- Peer tutors
- Peer mediators
- Peer counselors
- Peer recognition
- Student-led conferences

Parent and Staff Involvement

The fourth supportive option focuses on active involvement of parents and other staff in the discipline process.

Parent involvement. Parents are the central element or the keystone in this supportive arch. Parents can be an invaluable support if teachers implement an inviting approach that creates a feeling of being allies rather than adversaries. How teachers interact with parents—what teachers project to parents—does make a difference in what teachers get back from parents. Teachers want their interaction to be giving the message of "Let's work together to meet the needs of your child."

The tools needed to accomplish this are the "crucial C's of parental support": That is, parent/teacher:

- Communication
- Connection
- Collaboration

Staff involvement. Staff involvement in the classroom is also important if teachers are going to be able to meet the needs of their students. Teachers no longer operate in isolation from one another. They need to collaborate with many other educators in solving both learning and discipline problems. The special education teacher, the school nurse, the music and physical education teachers, the school social worker, the occupational therapist, the speech and language pathologist, the English as a Second Language and/or the bilingual teacher, the administrators, the school counselor, and the school psychologist are all support people in meeting students' needs. The more they work together, the better they can serve students.

Encouragement and Effective Praise

The fifth supportive option focuses on student growth toward responsible behavior choices. Rather than wait for a finished product (praise), teachers can encourage positive steps, movement, improvement, progress of the student, and students' efforts and strengths. Encouragement focuses on getting students to look within for validation and examine their own reactions to their accomplishments and their strengths. An example of encouragement (internally focused) is, "It looks as if you put a lot of effort into this picture. I'll bet you are proud of it."

Effective praise focuses on giving feedback to students about their accomplishments. Effective praise needs to be appreciative rather than controlling and informative rather than evaluative. Genuine, specific, non-verbal communication has to be congruent with the praise message and use a variety of phrases (Brophy, 1998). An example of effective praise (externally focused) is, "I admire the unusual way that you used colors in this picture. It creates a very pleasing effect."

Capable Strategies

The sixth supportive option focuses on building up students' sense of accomplishment. Building up the capability level of students is something that all students need, but students that have "I can't" messages in their heads especially need these strategies. Lew and Bettner (1998) emphasize the

importance of helping students to feel capable. They suggest:

- Making mistakes a learning opportunity
- Focusing on improvement, not perfection
- Building on student strengths
- Allowing students to struggle and succeed within their ability level
- Acknowledging the difficulty of the task
- Analyzing past successes, and then focusing on the present
- Breaking the task into bite-sized instructional pieces
- Working on positive self-talk
- Celebrating accomplishments

Teacher/Student Relationship

The seventh supportive option focuses on choices in creating positive relationships between teachers and students. This is one of the primary motivators toward responsible behavior choices. The following list includes many options for building the teacher/student relationships:

- Give respect to get respect.
- Listen to the students.
- Involve them in class decision making; that is, give voice and choice; have a class suggestion box.
- Communicate positive expectations.
- Let enthusiasm for teaching shine through.
- Greet students by name.
- Show interest in their interests.
- Remember information about students' lives outside of school.
- Chat with students outside of class.
- Celebrate accomplishments.
- Eat lunch with students.
- Recognize students' birthdays.
- Keep lines of communication open.
- Use a collaborative discipline style.
- Look for and comment on students' strengths; use affirmations.
- Send positive messages to students.
- Model kind behavior.
- Be helpful.
- Attend student events.
- Have one-on-one time with the students.
- Focus on successes of all students.
- Display student work; let them choose which work is to be displayed.
- Accept individual differences, and value student diversity.

Supportive Solutions for Problem Behaviors

Distracting Misbehaviors

- Give attention for responsible behavior choices.
- Build positive teacher/student and student/student relationships.
- Use encouragement and effective praise.
- Incorporate capable strategies to adapt instruction to meet student learning modality needs.

Controlling Behaviors

- Provide legitimate avenues for power in the class.
- Assign classroom responsibilities.
- Involve students in the decision-making process.
- Provide choices.

Angry/Violent Behaviors

- Teach anger management skills.
- Establish a conflict resolution or peer mediation program.
- Teach pro-social responsible behaviors.
- Teach stress management strategies.
- Encourage positive teacher/student and student/student relationships.
- Encourage a connection and commitment to the school and extracurricular activities.
- Encourage increased parent/child communication.
- Anticipate student success.
- Involve the school counselor and/or school psychologist.
- Use effective teaching choices linked to learner interests.
- Establish a peer counseling program.

Summary

When students are supported in making responsible behavior choices, then teachers create a classroom where everyone wants to be and can learn. Teaching and classroom climate encourage responsible behavior. Best practices in classroom management help teachers create learning environments that motivate their students through active involvement in the learning and discipline processes with the goals of acquiring learning skills, self-management skills, and a repertoire of responsible behaviors.

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CLASSROOM MANAGEMENT: CORRECTIVE STRATEGIES

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NATIONAL ASSOCIATION OF SCHOOL PSYCHOLOGISTS

Classroom management requires an orchestration of effective teaching, proactive preventive strategies, practical corrective strategies, and positive supportive techniques. This approach helps teachers motivate students through active involment in their own learning *and* discipline processes with the goals of acquiring learning, self-management, and a repertoire of responsible behaviors. When these components are integrated in your classroom, effective teaching, management, and discipline complement each other to facilitate learning. This handout deals with *corrective strategies* in comprehensive classroom management.

Corrective Strategies

Excellent teaching and proactive prevention keep a lot of classroom problems from developing, but reality indicates that these two approaches will not eliminate all problems. Being prepared with practical strategies to deal with the moment of misbehavior is also vital to a comprehensive approach. Recognizing the type of misbehavior that the student is choosing is necessary so that a corrective intervention strategy that fits the situation can be utilized. Attention, power, revenge, avoidance, impulsive, and unmotivated behaviors all need different strategies to effectively deal with the misbehavior.

There are two *keys of effective delivery* of corrective intervention strategies that are essential at the moment of misbehavior in order to model self-management: Use as few words as possible and control your reaction. We present the following options for dealing with different levels of misbehaviors: "A" options for distracting behaviors, "B" options for controlling behaviors, and "C" options for angry/violent behaviors.

"A" Options for Distracting Behaviors

Distracting misbehaviors are ones that sidetrack the teacher from the lesson and/or divert the attention of the students from the learning. These misbehaviors interrupt the lesson, stop the momentum, and get the focus away from important matters and annoy the teachers all at the same time.

Active Body Language

These strategies include:

- The "look"
- Proximity
- Body carriage
- Appropriate touch
- Signals and gestures
- Teaching pause

Attention-Focusing Strategies

- *Signals:* Auditory (including using the student's name and changing the tone or volume of your voice) and visual cues.
- *Refocus notes:* A non-verbal option to deal with distracting behaviors. Instead of interrupting your teaching, you write what you want the student to stop doing on a note or Post-it and quietly put it in front of the student who is distracting.

- *Target–stop–do:* The *target* is the student who is enacting distracting behaviors. The *stop* is the distracting behavior that needs to be stopped. The *do* is the responsible behavior that needs to replace the misbehavior. For example, "Juanita, please stop tapping your pencil and get busy on your math problems."
- *Grandma's rule:* A verbal attention-focusing option that you use when utilizing incentives. They are delivered as "When ... then ..." statements.
- *Distract the distractor:* An attention-focusing option where you divert the student by asking a question without embarrassing the student or you ask the student to perform a task for you.
- *Coupon approach:* An attention-focusing option used to reduce a particular behavior but not eliminate it altogether. When a student asks an inordinate number of questions as an attention-getting device, you do not want to stop that student from asking questions completely but you do want that student to learn how to manage the multitude of questions and to develop the skill to think before asking the question or to seek the answer on his or her own. You meet with the student to determine the number of question coupons.
- *"I" statements:* An effective way to communicate about negative behavior. It includes the following three parts: "I feel _____ (feeling word) when you _____ (specific behavior) because _____ (the effect of the behavior)." A fourth optional part adds, "I would prefer that you _____ (specific responsible behavior)" or "I would appreciate if you would _____ (specific responsible behavior)."

"B" Options for Controlling Behaviors

Students who choose controlling misbehaviors are quite adept at pushing the teacher's buttons. They seem to know instinctively what will get a rise out of us. Being prepared both mentally and with strategies to deal with their button pushing is the first step to being successful with students who engage in controlling behaviors. The button-pusher escape strategies are designed to help you deal with the initial situation when students are pushing your buttons to provoke a power struggle. Brief choices and business-like consequences are other useful options for dealing with controlling behaviors.

Button-Pusher Escapes

- *Acknowledge the student's power:* This can be used when you are working with students who choose controlling behaviors that indicate, "You can't make me." This strategy is designed to sidestep a power struggle about whether or not you can make the student do something. You agree that you can't make them do it, but then focus on what their choices are if they do not. "You are right, I can't make you. But remember what your choices are."
- *Table the matter:* This can be used with students choosing controlling behaviors that indicate the need to close things down for now. You leave the door open to discuss the problem at a later time, but you indicate that now during the lesson is not the appropriate time. "We need to discuss this later, not during our math lesson."
- *Let's chat:* This helps you to change the dynamics from having a heated discussion while class is going on. You acknowledge the student's frustration and offer him or her a definite later meeting time. "You sound frustrated. We can meet at 10 o'clock or at 11 o'clock to discuss the problem."
- *"To you to me" statements:* This is when you recognize the student's perspective in the problem situation, but then offer your perspective. This gives you an opportunity to deal in the moment with the student's challenging remark without taking it personally or fighting with the student. "To you this is a boring lesson. To me it's an important part of the learning process."
- *Other options:* These include humor, redirection, and asking responsible-thinking questions.

Brief Choices

Brief choice language is an option where brief interaction is combined with choices, and this gives students a sense of control over their lives. First you explicitly state the appropriate responsible behavior. Then you use the word "or" and follow that by what the consequence will be if the student continues to choose an inappropriate behavior. "I need you to work on these math problems *or* you'll be working on them later during choice time."

Business-Like Consequences

This is a corrective strategy used with controlling and angry/violent behaviors. It holds students responsible for poor behavior choices by having a consequence for their actions. The five consequences are: related, reasonable, respectful, reliably enforced, and real participation.

"C" Options for Anger/Violent Behaviors

Angry/violent behaviors are the highest level of seriousness of misbehavior. These are the behaviors that trigger the strongest reaction in teachers. These are the behaviors that sometimes provoke a reaction at the

sizzling level. Our natural impulse is to strike back, to retaliate, or to escape. Responding to angry/violent behaviors tends to kick in our flight-or-fight reaction. The challenge to *control your reaction* is at an all time high. Strategies include behavioral contracts, chill-out time, consequences, chat time, and curbing violence.

Chill-Out Time

This is a corrective strategy for dealing with the initial situation with a volatile student. Dealing with their angry feelings is their main need, so chill-out time helps the student recognize anger and calm down when it is starting to build up. You have a definite place and process pre-arranged with your students for them to calm down when they are losing control and to process their misbehaviors.

Consequences (Restitution)

Restitution is an option used when students are choosing angry/violent behaviors and is focused on repairing the damage that was done. Students should make reparations for hurtful, destructive behaviors. If a student messes something up, the student cleans up the mess. If a student breaks something, then the student fixes or replaces the broken item.

Chat Time With Students

This is one of the options for working on long-term solutions with angry/violent students. This strategy involves getting together with the student and having a conversation about the problem to actively involve the student in the discipline process. Chat time can be simply pulling a student to the side or scheduling a time to have a more in-depth chat.

Curbing Violence

These are options for dealing with angry/violent students during a volatile episode: control your reaction; use button-pusher escapes; send for help, back up, and support; use slow, deliberate, authoritative language ("Stop now!"); schedule follow-up chat time to develop a contract; and choose supportive strategies (see "Resources" below).

Resources

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High-Leverage Practices in Special Education

Assessment

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' 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 (see Linn & Hemmer, 2011; U.S. Department of Education, 2016; Zhang & Katisyannis, 2002).

McLeskey, J., Barringer, M-D., Billingsley, B., Brownell, M., Jackson, D., Kennedy, M., Lewis, T., Maheady, L., Rodriguez, J., Scheeler, M. C., Winn, J., & Ziegler, D. (2017, January). High-leverage practices in special education. Arlington, VA: Council for Exceptional Children & CEEDAR Center. © 2017 CEC & CEEDAR

High-Leverage Practices in Special Education

Assessment

HLP4	**Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs.**

To develop a deep understanding of a student's learning needs, special educators compile a comprehensive learner profile through the use of a variety of assessment measures and other sources (e.g., information from parents, general educators, other stakeholders) that are sensitive to language and culture, to (a) analyze and describe students' strengths and needs and (b) analyze the school-based learning environments to determine potential supports and barriers to students' academic progress. Teachers should collect, aggregate, and interpret data from multiple sources (e.g., informal and formal observations, work samples, curriculum-based measures, functional behavior assessment [FBA], school files, analysis of curriculum, information from families, other data sources). This information is used to create an individualized profile of the student's strengths and needs.

HLP5	**Interpret and communicate assessment information with stakeholders to collaboratively design and implement educational programs.**

Teachers interpret assessment information for stakeholders (i.e., other professionals, families, students) and involve them in the assessment, goal development, and goal implementation process. Special educators must understand each assessment's purpose, help key stakeholders understand how culture and language influence interpretation of data generated, and use data to collaboratively develop and implement individualized education and transition plans that include goals that are standards-based, appropriate accommodations and modifications, and fair grading practices, and transition goals that are aligned with student needs.

High-Leverage Practices in Special Education

Assessment

HLP6	**Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes.**

After special education teachers develop instructional goals, they evaluate and make ongoing adjustments to students' instructional programs. Once instruction and other supports are designed and implemented, special education teachers have the skill to manage and engage in ongoing data collection using curriculum-based measures, informal classroom assessments, observations of student academic performance and behavior, self-assessment of classroom instruction, and discussions with key stakeholders (i.e., students, families, other professionals). Teachers study their practice to improve student learning, validate reasoned hypotheses about salient instructional features, and enhance instructional decision making. Effective teachers retain, reuse, and extend practices that improve student learning and adjust or discard those that do not.

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High-Leverage Practices in Special Education

Assessment: Research Syntheses

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.

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HLP4	**Use multiple sources of information to develop a comprehensive understanding of a student's strengths and needs.**
To develop a deep understanding of a student's learning needs, special educators compile a comprehensive learner profile through the use of a variety of assessment measures and other sources (e.g., information from parents, general educators, other stakeholders) that are sensitive to language and culture, to (a) analyze and describe students' strengths and needs and (b) analyze the school-based learning environments to determine potential supports and barriers to students' academic progress. Teachers should collect, aggregate, and interpret data from multiple sources (e.g., informal and formal observations, work samples, curriculum-based measures, functional behavior assessment [FBA], school files, analysis of curriculum, information from families, other data sources). This information is used to create an individualized profile of the student's strengths and needs.	

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).

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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.

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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).

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.

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.

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HLP5	**Interpret and communicate assessment information with stakeholders to collaboratively design and implement educational programs.**
Teachers interpret assessment information for stakeholders (i.e., other professionals, families, students) and involve them in the assessment, goal development, and goal implementation process. Special educators must understand each assessment's purpose, help key stakeholders understand how culture and language influence interpretation of data generated, and use data to collaboratively develop and implement individualized education and transition plans that include goals that are standards-based, appropriate accommodations and modifications, and fair grading practices, and transition goals that are aligned with student needs.	

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 & Katisyannis, 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.

Providing families with information about assessment data prior to eligibility and IEP meetings can help families prepare for team meetings.

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.

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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.

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HLP6	**Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes.**

After special education teachers develop instructional goals, they evaluate and make ongoing adjustments to students' instructional programs. Once instruction and other supports are designed and implemented, special education teachers have the skill to manage and engage in ongoing data collection using curriculum-based measures, informal classroom assessments, observations of student academic performance and behavior, self-assessment of classroom instruction, and discussions with key stakeholders (i.e., students, families, other professionals). Teachers study their practice to improve student learning, validate reasoned hypotheses about salient instructional features, and enhance instructional decision making. Effective teachers retain, reuse, and extend practices that improve student learning and adjust or discard those that do not.

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,

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- 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).

> *Formative assessment ... is only effective when coupled with sound instructional decision making and effective interventions.*

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).

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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, Zigmond, 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.

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High-Leverage Practices in Special Education

Collaboration

Effective special education teachers collaborate with a wide range of professionals, families and caregivers to assure that educational programs and related services are effectively designed and implemented to meet the needs of each student with a disability. Collaboration allows for varied expertise and perspectives about a student to be shared among those responsible for the student's learning and well-being. This collective expertise provides collaborators with a more comprehensive understanding of each student's needs, which can be used to more effectively plan and implement instruction and services.

Teachers use respectful and effective communication skills as they collaborate with others, considering the background, socioeconomic status, culture, and language of the families and the professionals with whom they work. Collaborative activities should be focused on (a) designing each student's instructional program to meet clearly specified outcomes and (b) collecting data and monitoring progress toward these outcomes. Effective and purposeful collaboration should enlist support from district and school leaders, who can foster a collective commitment to collaboration, provide professional learning experiences to increase team members' collaborative skills, and create schedules that support different forms of ongoing collaboration (e.g., individualized education program [IEP] teams, co-teachers, teachers–families, teachers–paraprofessionals).

HLP1	**Collaborate with professionals to increase student success.**
Collaboration with general education teachers, paraprofessionals, and support staff is necessary to support students' learning toward measurable outcomes and to facilitate students' social and emotional well-being across all school environments and instructional settings (e.g., co-taught). Collaboration with individuals or teams requires the use of effective collaboration behaviors (e.g., sharing ideas, active listening, questioning, planning, problem solving, negotiating) to develop and adjust instructional or behavioral plans based on student data, and the coordination of expectations, responsibilities, and resources to maximize student learning.	

McLeskey, J., Barringer, M-D., Billingsley, B., Brownell, M., Jackson, D., Kennedy, M., Lewis, T., Maheady, L., Rodriguez, J., Scheeler, M. C., Winn, J., & Ziegler, D. (2017, January). High-leverage practices in special education. Arlington, VA: Council for Exceptional Children & CEEDAR Center. © 2017 CEC & CEEDAR

High-Leverage Practices in Special Education

Collaboration

HLP2	**Organize and facilitate effective meetings with professionals and families.**
Teachers lead and participate in a range of meetings (e.g., meetings with families, individualized education program [IEP] teams, individualized family services plan [IFSP] teams, instructional planning) with the purpose of identifying clear, measurable student outcomes and developing instructional and behavioral plans that support these outcomes. They develop a meeting agenda, allocate time to meet the goals of the agenda, and lead in ways that encourage consensus building through positive verbal and nonverbal communication, encouraging the sharing of multiple perspectives, demonstrating active listening, and soliciting feedback.	

HLP3	**Collaborate with families to support student learning and secure needed services.**
Teachers collaborate with families about individual children's needs, goals, programs, and progress over time and ensure families are informed about their rights as well as about special education processes (e.g., IEPs, IFSPs). Teachers should respectfully and effectively communicate considering the background, socioeconomic status, language, culture, and priorities of the family. Teachers advocate for resources to help students meet instructional, behavioral, social, and transition goals. In building positive relationships with students, teachers encourage students to self-advocate, with the goal of fostering self-determination over time. Teachers also work with families to self-advocate and support their children's learning.	

McLeskey, J., Barringer, M-D., Billingsley, B., Brownell, M., Jackson, D., Kennedy, M., Lewis, T., Maheady, L., Rodriguez, J., Scheeler, M. C., Winn, J., & Ziegler, D. (2017, January). High-leverage practices in special education. Arlington, VA: Council for Exceptional Children & CEEDAR Center. © 2017 CEC & CEEDAR

High-Leverage Practices in Special Education

Collaboration: Research Syntheses

Effective special education teachers collaborate with a wide range of professionals, families and caregivers to assure that educational programs and related services are effectively designed and implemented to meet the needs of each student with a disability. Collaboration allows for varied expertise and perspectives about a student to be shared among those responsible for the student's learning and well-being. This collective expertise provides collaborators with a more comprehensive understanding of each student's needs, which can be used to more effectively plan and implement instruction and services.

Teachers use respectful and effective communication skills as they collaborate with others, considering the background, socioeconomic status, culture, and language of the families and the professionals with whom they work. Collaborative activities should be focused on (a) designing each student's instructional program to meet clearly specified outcomes and (b) collecting data and monitoring progress toward these outcomes. Effective and purposeful collaboration should enlist support from district and school leaders, who can foster a collective commitment to collaboration, provide professional learning experiences to increase team members' collaborative skills, and create schedules that support different forms of ongoing collaboration (e.g., individualized education program [IEP] teams, co-teachers, teachers–families, teachers–paraprofessionals).

HLP1	**Collaborate with professionals to increase student success.**
Collaboration with general education teachers, paraprofessionals, and support staff is necessary to support students' learning toward measurable outcomes and to facilitate students' social and emotional well-being across all school environments and instructional settings (e.g., co-taught). Collaboration with individuals or teams requires the use of effective collaboration behaviors (e.g., sharing ideas, active listening, questioning, planning, problem solving, negotiating) to develop and adjust instructional or behavioral plans based on student data, and the coordination of expectations, responsibilities, and resources to maximize student learning.	

McLeskey, J., Barringer, M-D., Billingsley, B., Brownell, M., Jackson, D., Kennedy, M., Lewis, T., Maheady, L., Rodriguez, J., Scheeler, M. C., Winn, J., & Ziegler, D. (2017, January). High-leverage practices in special education. Arlington, VA: Council for Exceptional Children & CEEDAR Center. © 2017 CEC & CEEDAR

Collaboration is broadly recommended in special education for accomplishing a wide range of goals, including determining eligibility for services, delivering instruction, ensuring support through paraprofessionals, and resolving student and programmatic issues (see Burns, Vanderwood, & Ruby, 2005). However, collaboration is ethereal in that it is never an end in itself, instead operating as a culture or a means through which any goal can be reached. Collaboration often is indirectly fostered among members of a school work group by arranging time for participants to meet face-to-face, guiding them through the development of positive professional relationships, establishing explicit and implicit procedures for working together, and teaching them about school programs that rely on collaborative interactions (e.g., teams, co-teaching). Collaboration is not explicitly mandated in the Individuals With Disabilities Education Act (IDEA), nor is it generally part of formal policies related to educating students with disabilities, but the requirements of the law and established school practices strongly infer that it is through collaboration that the effective education of students with disabilities is achieved.

Asked to define *collaboration*, a typical response is "working together." However, a nuanced understanding suggests that collaboration is more about how individuals share their work, and it is characterized by voluntariness, mutual goals, parity, shared responsibility for critical decisions, joint accountability for outcomes, and shared resources (Friend & Cook, 2017). It is also developmental, growing over time as participants increase their trust of one another and create a sense of professional community. It is not surprising that research on collaboration is constrained by its elusive nature, by its innumerable applications, and by the number of variables that contribute to its existence.

Research Support

Research related to collaboration has consisted largely of anecdotal reports and surveys of individuals' perceptions about their collaborative experiences, including the importance of administrative support and the effect on student outcomes, often seasoned with advice for implementing collaborative strategies and exhortations about their importance. However, a handful of studies have examined collaboration with a more precise lens; these can be grouped into three categories: (a) those that broadly analyze the relationship between the presence of collaboration and student outcomes, (b) those that consider the effect of specific collaborative school structures, and (c) those that investigate specific components of collaboration.

Researchers have for many years studied schools in which students with disabilities (usually those with learning disabilities, other health impairment/ADHD, or autism spectrum disorder) outperform similar students in other locales, seeking common characteristics that contribute to their success. Collaborative culture or high value on collaboration is a typical finding

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in these studies (e.g., Caron & McLaughlin, 2002; Huberman, Navo, & Parrish, 2012). Attention has turned recently to analyzing whether specific aspects of collaboration are associated with such positive results. For example, in a study that included more than 9,000 teacher observations over 2 years as well as administrative and student data, Ronfeldt, Farmer, McQueen, and Grissom (2015)—accounting for factors that might lead to spurious correlational associations—found that teachers participating more frequently and with more satisfaction in team activities, especially those related to assessments, produced relatively higher student achievement than teachers with less frequent and less satisfying team interactions. Ronfeldt et al. concluded that a causal relationship exists between collaboration and student outcomes.

The two most common school structures presumed to rely on collaboration are co-teaching and teams. Co-teaching research generally has found strong support among teachers but mixed results for students (Murawski & Swanson, 2001; Scruggs, Mastropieri, & McDuffie, 2007). The most recent examination of the co-teaching research literature, an analysis of six co-teaching and inclusion research syntheses, concluded that when general educators and special educators work closely to coordinate the delivery of curriculum and have resources such as time to plan, small positive effects on student academic outcomes are achieved (Solis, Vaughn, Swanson, & McCulley, 2012). A related study supported this conclusion, finding that elementary-age students with disabilities in co-taught classes made significant educational progress while those in separate special education classroom settings did not, the gap between the two groups widening across time (Tremblay, 2013).

Similarly, collaboration has been associated with positive outcomes on student-centered problem-solving teams (Sheridan et al., 2004). However, much of the research on teams has focused on their general characteristics, including the importance of member interdependence, individual accountability, satisfaction of member needs, clarity of roles and expectations, and diversity of expertise among team members (e.g., Park, Henkin, & Egley, 2005). Other variables considered include teacher empowerment (Rafoth & Foriska, 2006) and the positive association of professional familiarity with team effectiveness (Killumets, D'Innocenzo, Maynard, & Mathieu, 2015).

Communication skills are key building blocks for collaboration.

Communication skills are key building blocks for collaboration; participants' verbal and nonverbal skills largely define whether collaboration can occur. For example, relatively equal amounts of talk by participants, the use of words that suggest instead of advise, and the interplay of who structures the flow of the interaction and who influences its content promote a perception of collaboration (Erchul et al., 1999). An additional element of

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collaboration is trust, and qualitative research indicates that trust is a facilitator for collaboration because it enables participants to communicate clearly, even on topics that might be considered sensitive (Hallam, Smith, Hite, Hite, & Wilcox, 2015).

Conclusion

Collaboration is intuitively appealing but extraordinarily challenging to study using rigorous research designs. Even though some evidence exists to demonstrate the effectiveness of collaboration, much of that evidence consists of case studies, program evaluation, and qualitative research. At this time, only limited rigorous empirical evidence guides practitioners regarding the criteria for assessing the quality of collaboration or for determining whether collaboration has a direct and positive effect on outcomes for students with disabilities.

HLP2	**Organize and facilitate effective meetings with professionals and families.**
Teachers lead and participate in a range of meetings (e.g., meetings with families, individualized education program [IEP] teams, individualized family services plan [IFSP] teams, instructional planning) with the purpose of identifying clear, measurable student outcomes and developing instructional and behavioral plans that support these outcomes. They develop a meeting agenda, allocate time to meet the goals of the agenda, and lead in ways that encourage consensus building through positive verbal and nonverbal communication, encouraging the sharing of multiple perspectives, demonstrating active listening, and soliciting feedback.	

Special education teachers typically organize, schedule, and lead a variety of meetings, including annual IEP meetings as well as ongoing collaborative meetings essential to instructional planning and progress monitoring. IEP meetings involve both parents and professionals (e.g., general education teachers, fellow special education teachers, reading specialists, curriculum specialists, principals, other administrators, outside consultants), as well as students with disabilities. IDEA requires that parents be given opportunities for full participation in the development of the IEP. The way in which the IEP meeting is organized and facilitated should ensure

that the family is an equal partner in the development of an appropriate education for the child.

Special education teachers need to facilitate meetings so they run smoothly, involve others as equal participants, and accomplish the goals of the meeting. These tasks require communicating effectively with others, being able discuss aspects of the individual child's program (e.g., explain the rationale behind behavior intervention plans, describe effective practices), and facilitating consensus among all involved. The partnership principles of equality, choice, voice, reciprocity, praxis, and reflection aid in the development of effective communication skills (Knight, 2007). Using these principles requires specific skills, which may be developed with diligent practice. It may be helpful to solicit feedback from a mentor or colleague as well as team members to improve one's communication and facilitation skills.

Collaboration—when teachers work together to diagnose what they need to do, plan and teach interventions, and evaluate their effectiveness—has shown a strong effect size of 0.93 on student achievement. Effective meetings are facilitated by building trust, communicating clearly, listening carefully to others' concerns and opinions

The Council for Exceptional Children's special education Code of Ethics (2015) includes the following principles relating to organizing and facilitating effective meetings:

- Practicing collegially with others who are providing services to individuals with exceptionalities.
- Developing relationships with families based on mutual respect and actively involving families and individuals with exceptionalities in educational decision making. (p. 7)

Research and Policy Support

Collaboration–when teachers work together to diagnose what they need to do, plan and teach interventions, and evaluate their effectiveness–has shown a strong effect size of 0.93 on student achievement (DuFour, 2007; Hattie, 2008). Effective meet Nelson, and Beegle (2004) recommended the aforementioned attitudes and behaviors to promote positive relationships with parents. Further, the association Learning Forward has recommended using problem-solving protocols for teams and individuals who face frustrating situations (Killion, Harrison, Bryan, & Clifton, 2012). Fortunately, re-searchers have found that these communication behaviors can be learned (Patterson et al., 2012).

Meeting agendas should be planned in a way that invites the sharing of multiple perspectives, involves active listening, and encourages consensus building, while maintaining efficiency. Agendas for formal meetings should be developed and shared in advance; the meeting should be

scheduled for an appropriate amount of time given meeting goals and participants invited with sufficient advance notice.

In addition, case law supports the notion that the IEP is the centerpiece of IDEA law and that the student's parents or guardians are considered full and equal partners in its development. Teachers need to understand what is to be accomplished at IEP meetings and to ensure that all requirements are met. It is not appropriate to come to the meeting with a completed IEP, and special educators need to be sure parents have meaningful opportunities to contribute. For example, a translator will need to be available if the parent does not speak English. It also may be important to send information to parents prior to the IEP meeting, so they understand the purpose of the meeting and understand that they will be given opportunities share information about their child and to make suggestions. Sample IEP agendas are available online (e.g., www.PACER.org) and may be provided by a state's department of education or a local director of special education.

Finally, meetings will be more productive if there is trust among participants. Teachers should consider taking steps before meetings to build relationships with professionals and families on an ongoing basis (Billingsley, Brownell, Israel, & Kamman, 2013). At the start of the school year, effective special educators communicate with families via phone, e-mail, or notes home with positive messages about individual children and their accomplishments. At IEP team meetings, special educators should communicate the value of all participants' input, allow time for introductions and celebrations, and discuss meeting outcomes and goals. It is often helpful to briefly discuss ground rules for the meeting (e.g., expectations, norms, community principles). Team members' satisfaction with the process and outcomes of meetings can be improved with goal setting and ongoing feedback, which is referred to as the *social acceptability* of meetings (Reinig, 2003). As special educators are primary communicators in the school regarding students with disabilities, they also should serve as models of respectful communication by using person-first language.

Conclusion

There are two ways to consider the research available on meetings with professionals and families: effectiveness and social acceptability. Although little research is available about organizing and facilitating meetings, evidence does suggest the importance of having clear meeting goals, establishing a meeting agenda, setting expectations, using active listening, and encouraging genuine communication. Research on social acceptability is typically focused on team members' satisfaction (Reinig, 2003). Employing a partnership approach with professionals and parents makes gathering valuable input possible, and makes messages more receivable and meetings more effective (Knight, 2007).

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HLP3	**Collaborate with families to support student learning and secure needed services.**
Teachers collaborate with families about individual children's needs, goals, programs, and progress over time and ensure families are informed about their rights as well as about special education processes (e.g., IEPs, IFSPs). Teachers should respectfully and effectively communicate considering the background, socioeconomic status, language, culture, and priorities of the family. Teachers advocate for resources to help students meet instructional, behavioral, social, and transition goals. In building positive relationships with students, teachers encourage students to self-advocate, with the goal of fostering self-determination over time. Teachers also work with families to self-advocate and support their children's learning.	

The importance of collaborating with families to promote participation in educational decision making has been identified as one of the key principles of IDEA (H. R. Turnbull, Stowe, & Huerta, 2007). IDEA provides for specific rights that enable parents to participate as equal members of the IEP team and to be involved in evaluation, placement, and special education and related service decisions. For families to take on such roles and responsibilities, collaboration between professionals and families is necessary. Using effective partnership strategies has been identified as a necessary element of building collaborative relationships.

Family–professional partnerships have been defined as

> a relationship in which families (not just parents) and professionals agree to build on each other's expertise and resources, as appropriate, for the purpose of making and implementing decisions that will directly benefit students and indirectly benefit other family members and professionals. (A. P. Turnbull, Turnbill, Erwin, Soodak, & Shogren, 2015, p. 161)

Seven principles of effective partnerships have been identified in the literature (see A. P. Turnbull et al., 2015):

- Communication: Teachers and families communicate openly and honestly in a medium that is comfortable for the family.
- Professional competence: Teachers are highly qualified in the area in which they work, continue to learn and grow, and have and communicate high expectations for students and families.
- Respect. Teachers treat families with dignity, honor cultural diversity, and affirm strengths.

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- Commitment: Teachers are available, consistent, and go above and beyond what is expected of them.
- Equality; Teachers recognize the strengths of every member of a team, share power with families, and focus on working together with families.
- Advocacy: Teachers focus on getting to the best solution for the student in partnership with the family.
- Trust: Teachers are reliable and act in the best interest of the student, sharing their vision and actions with the family.

Research Support

Researchers have examined issues related to the process of establishing family–professional partnerships and the effect of these partnerships on child and family outcomes. This body of research has used multiple methods (i.e., qualitative, quantitative, meta-analytic) to descriptively and empirically examine the effect of collaboration. Several studies have examined the relationship between family–professional partnerships and family outcomes, finding that parents report less stress, greater family quality of life, and greater satisfaction with education and related services when partnerships are stronger (Burke & Hodapp, 2014; Eskow, Chasson, Mitchell, & Summers, 2015; Neece, Kraemer, & Blacher, 2009; Shogren, McCart, Lyon, & Sailor, 2015).

When teachers and families effectively collaborate to set goals, children make more gains.

Researchers also have found that when educators use the principles of effective partnerships, this influences families' perceptions of and engagement in education planning. For example, communicating information in a respectful way—particularly by sharing information about testing results and educational progress using accessible and family-friendly language and mediums (i.e., videos, family portfolios)—leads to greater feelings of parent empowerment (Childre & Chambers, 2005; Klein et al., 2011; Meadan, Thompson, et al., 2009; Thompson, Meadan, Fansler, Alber, & Balogh, 2007). Addressing issues of cultural diversity is also essential (Kalyanpur, Harry, & Skrtic, 2000; Shogren, 2012; Valenzuela & Martin, 2005); using cultural navigators or parent or school liaisons who serve as brokers to promote respect and communication between families and educators of differing cultural backgrounds leads to increased parent involvement and families perceiving educators as trustworthy and advocating for child outcomes (Balcazar et al., 2012; Hardin, Mereoiu, Hung, & Roach-Scott, 2009; Howland, Anderson, Smiley, & Abbott, 2006).

There is a significant body of research that suggests that families, with support from teachers and related service professionals, learn and implement various teaching strategies in the home. For example, with regard to supporting positive behavior (and eliminating challenging behavior) in the home, significant child- and

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family-level outcomes result when families are provided with culturally responsive training and support that promotes feelings of equality and trust in professionals (Kim, Sheridan, Kwon, & Koziol, 2013; Lucyshyn et al., 2007; McCormick, Cappella, O'Connor, & McClowry, 2013; McLaughlin, Denney, Snyder, & Welsh, 2012; Meadan, Ostrosky, Zaghlawan, & Yu, 2009). Families also play an important role in teaching self-determination skills, during early childhood (Brotherson, Cook, Erwin, & Weigel, 2008; Cook, Brotherson, Weigel-Garrey, & Mize, 1996; Erwin et al., 2009; Palmer et al., in press; Summers et al., 2014) and across the lifespan (Shogren, 2012; Shogren, Garnier Villarreal, Dowsett, & Little, 2016; Zhang, 2005). Further, when teachers and families effectively collaborate to set goals, children make more gains in the attainment of goals, which suggests the importance of partnerships in influencing child outcomes (Childre & Chambers, 2005; Palmer et al., in press). Finally, engaging families in transition planning has the potential to affect students' postschool outcomes (Test et al., 2009), and increasing family knowledge influences family expectations for postschool outcomes (Young, Morgan, Callow-Heusser, & Lindstrom, 2016), which can lead to greater advocacy on the part of families and young adults with disabilities, particularly related to employment (Francis, Gross, Turnbull, & Turnbull, 2013; Francis, Gross, Turnbull, & Parent-Johnson, 2013).

Conclusion

A diverse body of research suggests the positive effect of building collaborative relationships between educators and families using effective partnership principles. These effects include not only improvements in teacher–family relationships and increases in shared decision making, but also child-level and family-level effects. A clear set of principles that define effective partnerships have emerged from research which emphasize creating trusting partnerships through communication, professional competence, respect, commitment, equality, and advocacy. In implementing these principles, it is essential to honor and respect cultural diversity and differing communication styles and preferences.

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High-Leverage Practices in Special Education

Instruction

Teaching students with disabilities is a strategic, flexible, and recursive process as effective special education teachers use content knowledge, pedagogical knowledge (including evidence-based practice), and data on student learning to design, deliver, and evaluate the effectiveness of instruction. This process begins with well-designed instruction. Effective special education teachers are well versed in general education curricula and other contextually relevant curricula, and use appropriate standards, learning progressions, and evidence-based practices in conjunction with specific IEP goals and benchmarks to prioritize long- and short-term learning goals and to plan instruction. This instruction, when delivered with fidelity, is designed to maximize academic learning time, actively engage learners in meaningful activities, and emphasize proactive and positive approaches across tiers of instructional intensity.

Effective special education teachers base their instruction and support of students with disabilities on the best available evidence, combined with their professional judgment and knowledge of individual student needs. Teachers value diverse perspectives and incorporate knowledge about students' backgrounds, culture, and language in their instructional decisions. Their decisions result in improved student outcomes across varied curriculum areas and in multiple educational settings. They use teacher-led, peer-assisted, student-regulated, and technology-assisted practices fluently, and know when and where to apply them. Analyzing instruction in this way allows teachers to improve student learning and their professional practice.

HLP11	**Identify and prioritize long- and short-term learning goals.**

Teachers prioritize what is most important for students to learn by providing meaningful access to and success in the general education and other contextually relevant curricula. Teachers use grade-level standards, assessment data and learning progressions, students' prior knowledge, and IEP goals and benchmarks to make decisions about what is most crucial to emphasize, and develop long- and short-term goals accordingly. They understand essential curriculum components, identify essential prerequisites and foundations, and assess student performance in relation to these components.

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High-Leverage Practices in Special Education

Instruction

HLP12	Systematically design instruction toward a specific learning goal.

Teachers help students to develop important concepts and skills that provide the foundation for more complex learning. Teachers sequence lessons that build on each other and make connections explicit, in both planning and delivery. They activate students' prior knowledge and show how each lesson "fits" with previous ones. Planning involves careful consideration of learning goals, what is involved in reaching the goals, and allocating time accordingly. Ongoing changes (e.g., pacing, examples) occur throughout the sequence based on student performance.

HLP13	Adapt curriculum tasks and materials for specific learning goals.

Teachers assess individual student needs and adapt curriculum materials and tasks so that students can meet instructional goals. Teachers select materials and tasks based on student needs; use relevant technology; and make modifications by highlighting relevant information, changing task directions, and decreasing amounts of material. Teachers make strategic decisions on content coverage (i.e., essential curriculum elements), meaningfulness of tasks to meet stated goals, and criteria for student success.

High-Leverage Practices in Special Education

Instruction

HLP14	**Teach cognitive and metacognitive strategies to support learning and independence.**

Teachers explicitly teach cognitive and metacognitive processing strategies to support memory, attention, and self-regulation of learning. Learning involves not only understanding content but also using cognitive processes to solve problems, regulate attention, organize thoughts and materials, and monitor one's own thinking. Self-regulation and metacognitive strategy instruction is integrated into lessons on academic content through modeling and explicit instruction. Students learn to monitor and evaluate their performance in relation to explicit goals and make necessary adjustments to improve learning.

HLP15	**Provide scaffolded supports.**

Scaffolded supports provide temporary assistance to students so they can successfully complete tasks that they cannot yet do independently and with a high rate of success. Teachers select powerful visual, verbal, and written supports; carefully calibrate them to students' performance and understanding in relation to learning tasks; use them flexibly; evaluate their effectiveness; and gradually remove them once they are no longer needed. Some supports are planned prior to lessons and some are provided responsively during instruction.

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High-Leverage Practices in Special Education

Instruction

HLP16	Use explicit instruction.

Teachers make content, skills, and concepts explicit by showing and telling students what to do or think while solving problems, enacting strategies, completing tasks, and classifying concepts. Teachers use explicit instruction when students are learning new material and complex concepts and skills. They strategically choose examples and non-examples and language to facilitate student understanding, anticipate common misconceptions, highlight essential content, and remove distracting information. They model and scaffold steps or processes needed to understand content and concepts, apply skills, and complete tasks successfully and independently.

HLP17	Use flexible grouping.

Teachers assign students to homogeneous and heterogeneous groups based on explicit learning goals, monitor peer interactions, and provide positive and corrective feedback to support productive learning. Teachers use small learning groups to accommodate learning differences, promote in-depth academic-related interactions, and teach students to work collaboratively. They choose tasks that require collaboration, issue directives that promote productive and autonomous group interactions, and embed strategies that maximize learning opportunities and equalize participation. Teachers promote simultaneous interactions, use procedures to hold students accountable for collective and individual learning, and monitor and sustain group performance through proximity and positive feedback.

High-Leverage Practices in Special Education

Instruction

HLP18	Use strategies to promote active student engagement.

Teachers use a variety of instructional strategies that result in active student responding. Active student engagement is critical to academic success. Teachers must initially build positive student–teacher relationships to foster engagement and motivate reluctant learners. They promote engagement by connecting learning to students' lives (e. g., knowing students' academic and cultural backgrounds) and using a variety of teacher-led (e.g., choral responding and response cards), peer-assisted (e. g., cooperative learning and peer tutoring), student-regulated (e.g., self-management), and technology-supported strategies shown empirically to increase student engagement. They monitor student engagement and provide positive and constructive feedback to sustain performance.

HLP19	Use assistive and instructional technologies.

Teachers select and implement assistive and instructional technologies to support the needs of students with disabilities. They select and use augmentative and alternative communication devices and assistive and instructional technology products to promote student learning and independence. They evaluate new technology options given student needs; make informed instructional decisions grounded in evidence, professional wisdom, and students' IEP goals; and advocate for administrative support in technology implementation. Teachers use the universal design for learning (UDL) framework to select, design, implement, and evaluate important student outcomes.

High-Leverage Practices in Special Education

Instruction

HLP20	**Provide intensive instruction.**
Teachers match the intensity of instruction to the intensity of the student's learning and behavioral challenges. Intensive instruction involves working with students with similar needs on a small number of high priority, clearly defined skills or concepts critical to academic success. Teachers group students based on common learning needs; clearly define learning goals; and use systematic, explicit, and well-paced instruction. They frequently monitor students' progress and adjust their instruction accordingly. Within intensive instruction, students have many opportunities to respond and receive immediate, corrective feedback with teachers and peers to practice what they are learning.	

HLP21	**Teach students to maintain and generalize new learning across time and settings.**
Effective teachers use specific techniques to teach students to generalize and maintain newly acquired knowledge and skills. Using numerous examples in designing and delivering instruction requires students to apply what they have learned in other settings. Educators promote maintenance by systematically using schedules of reinforcement, providing frequent material reviews, and teaching skills that are reinforced by the natural environment beyond the classroom. Students learn to use new knowledge and skills in places and situations other than the original learning environment and maintain their use in the absence of ongoing instruction.	

HLP22	**Provide positive and constructive feedback to guide students' learning and behavior.**

The purpose of feedback is to guide student learning and behavior and increase student motivation, engagement, and independence, leading to improved student learning and behavior. Effective feedback must be strategically delivered and goal directed; feedback is most effective when the learner has a goal and the feedback informs the learner regarding areas needing improvement and ways to improve performance. Feedback may be verbal, nonverbal, or written, and should be timely, contingent, genuine, meaningful, age appropriate, and at rates commensurate with task and phase of learning (i.e., acquisition, fluency, maintenance). Teachers should provide ongoing feedback until learners reach their established learning goals.

Note. As discussed in the Preface, two research syntheses were developed for the practice of providing effective feedback; this item appears in both the Social/Emotional/Behavioral Practices HLPs and the Instruction HLPs.

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High-Leverage Practices in Special Education

Social/Emotional/ Behavioral Practices

Effective special education teachers establish a consistent, organized, and respectful learning environment to support student success. To do this, they employ several practices that are critical in promoting student social and emotional well-being. First, effective teachers focus on increasing appropriate behavior by adopting an instructional approach that incorporates the explicit teaching of social skills and offers students multiple opportunities to practice appropriate social behaviors throughout the school day followed by positive specific feedback. Second, they implement evidence-based practices to prevent social, emotional, and behavioral challenges and provide early intervention at the first sign of risk. Third, effective teachers provide increasingly comprehensive supports through a team-based problem-solving strategy, to match the intensity of student challenges guided by behavioral assessment. Finally, they implement all behavioral supports—even those in response to significant problem behavior—in a caring, respectful, and culturally relevant manner. Effective teachers recognize that academic and behavioral support strategies are more effective when delivered within the context of positive and caring teacher–student relationships.

HLP7	**Establish a consistent, organized, and respectful learning environment.**
To build and foster positive relationships, teachers should establish age-appropriate and culturally responsive expectations, routines, and procedures within their classrooms that are positively stated and explicitly taught and practiced across the school year. When students demonstrate mastery and follow established rules and routines, teachers should provide age-appropriate specific performance feedback in meaningful and caring ways. By establishing, following, and reinforcing expectations of all students within the classroom, teachers will reduce the potential for challenging behavior and increase student engagement. When establishing learning environments, teachers should build mutually respectful relationships with students and engage them in setting the classroom climate (e.g., rules and routines); be respectful; and value ethnic, cultural, contextual, and linguistic diversity to foster student engagement across learning environments.	

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High-Leverage Practices in Special Education

Social/Emotional/ Behavioral Practices

HLP8	**Provide positive and constructive feedback to guide students' learning and behavior.**

The purpose of feedback is to guide student learning and behavior and increase student motivation, engagement, and independence, leading to improved student learning and behavior. Effective feedback must be strategically delivered and goal directed; feedback is most effective when the learner has a goal and the feedback informs the learner regarding areas needing improvement and ways to improve performance. Feedback may be verbal, nonverbal, or written, and should be timely, contingent, genuine, meaningful, age appropriate, and at rates commensurate with task and phase of learning (i.e., acquisition, fluency, maintenance). Teachers should provide ongoing feedback until learners reach their established learning goals.

HLP9	**Teach social behaviors.**

Teachers should explicitly teach appropriate interpersonal skills, including communication, and self-management, aligning lessons with classroom and schoolwide expectations for student behavior. Prior to teaching, teachers should determine the nature of the social skill challenge. If students do not know how to perform a targeted social skill, direct social skill instruction should be provided until mastery is achieved. If students display performance problems, the appropriate social skill should initially be taught, then emphasis should shift to prompting the student to use the skill and ensuring the "appropriate" behavior accesses the same or a similar outcome (i.e., is reinforcing to the student) as the problem behavior.

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High-Leverage Practices in Special Education

Social/Emotional/ Behavioral Practices

HLP10	**Conduct functional behavioral assessments to develop individual student behavior support plans.**

Creating individual behavior plans is a central role of all special educators. Key to successful plans is to conduct a functional behavioral assessment (FBA) any time behavior is chronic, intense, or impedes learning. A comprehensive FBA results in a hypothesis about the function of the student's problem behavior. Once the function is determined, a behavior intervention plan is developed that (a) teaches the student a pro-social replacement behavior that will serve the same or similar function, (b) alters the environment to make the replacement behavior more efficient and effective than the problem behavior, (c) alters the environment to no longer allow the problem behavior to access the previous outcome, and (d) includes ongoing data collection to monitor progress.

High-Leverage Practices in Special Education

Social/Emotional/Behavioral Practices: Research Syntheses

Effective special education teachers establish a consistent, organized, and respectful learning environment to support student success. To do this, they employ several practices that are critical in promoting student social and emotional well-being. First, effective teachers focus on increasing appropriate behavior by adopting an instructional approach that incorporates the explicit teaching of social skills and offers students multiple opportunities to practice appropriate social behaviors throughout the school day followed by positive specific feedback. Second, they implement evidence-based practices to prevent social, emotional, and behavioral challenges and provide early intervention at the first sign of risk. Third, effective teachers provide increasingly comprehensive supports through a team-based problem-solving strategy, to match the intensity of student challenges guided by behavioral assessment. Finally, they implement all behavioral supports—even those in response to significant problem behavior—in a caring, respectful, and culturally relevant manner. Effective teachers recognize that academic and behavioral support strategies are more effective when delivered within the context of positive and caring teacher–student relationships.

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Special educators cannot "make" students learn or behave; they can, however, create environments to increase the likelihood that students do both (Lewis, 2009). The foundation of any effective learning environment includes clear and consistent rules, routines, and procedures that keep students engaged and on track throughout the school day. All classroom procedures should be implemented in a proactive and positive manner in which the special educator is always the exemplar in treating students and other adults in a respectful and caring manner.

Rules should be stated positively (i.e., what the teacher wants students to do rather than does not want them to do) and kept to five or fewer. Examples and non-examples of behavioral expectations should be directly taught and expectations should be practiced throughout the school year until students demonstrate mastery.

Routines such as entering and exiting the classroom, how to respond to the teacher's attention signal, how to seek assistance, and expectations during activity transitions should be considered, as well as other daily routines. Critical steps to comply with procedures and routines should be task-analyzed and explicitly taught and practiced with students.

The conventional recommended ratio found in the professional literature is for every corrective statement a teacher makes, educators should look for at least four opportunities to acknowledge appropriate behavior (i.e., student demonstrations of classroom expectations). The goal is to acknowledge student mastery of social-behavioral expectations and compliance with procedures, not to point out frequent errors.

Special educators should provide students with opportunities to respond to both social and academic requests throughout the day, and prompts should reflect the nature of the academic or social expectation (e.g., "who can tell me what voice level we use when we walk to lunch?"). The rate of opportunities to respond will vary across age and severity of disability, but should be a primary instructional strategy during acquisition and fluency building among all students.

Special educators should strive for a balance of direct instruction, multiple opportunities for students to practice with high rates of feedback, and high rates of student success (i.e., 80% or better proficiency on tasks) to promote high engagement time and low rates of off-task behavior. For every lesson, student learning progress should be carefully monitored and instruction, practice, and feedback adjusted accordingly.

Research Support

A clear body of evidence exists to support these classroom strategies, as well as several others (see Hattie, 2008, for a comprehensive review). Researchers have examined combinations of the above on both academic and social behavior effects (Armendariz & Umbreit, 1999; Blackwell & McLaughlin, 2005; Bowman-Perrott. 2009;

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Haydon et al., 2010; Lewis, Hudson, Richter, & Johnson, 2004; Spencer, Scruggs, & Mastropieri, 2003; Sutherland, Wehby, & Yoder, 2002) and the essential features to increase teacher use of evidence-based practices (Simonsen, Fairbanks, Briesch, Myers, & Sugai, 2008; Simonsen, Myers, & DeLuca, 2010; Stichter et al., 2009; Wehby, Tally, & Falk, 2004). The Institute for Education Science's What Works Clearinghouse has indicated these and several similar strategies as having moderate to strong empirical evidence at the elementary level (What Works Clearinghouse, 2008).

Conclusion

Establishing a clear, consistent, and positive learning environment serves as the foundation for all other high-leverage practices (HLPs). It increases the likelihood of student academic and social behavior success, it increases educator opportunities to engage in effective instructional practices, and it fosters caring and respectful interactions between educators and students. Research over the past 50 years consistently reaffirms the effects that classroom management and instruction have on both academic and social performance (Hattie, 2008).

HLP8	**Provide positive and constructive feedback to guide students' learning and behavior.**
The purpose of feedback is to guide student learning and behavior and increase student motivation, engagement, and independence, leading to improved student learning and behavior. Effective feedback must be strategically delivered and goal directed; feedback is most effective when the learner has a goal and the feedback informs the learner regarding areas needing improvement and ways to improve performance. Feedback may be verbal, nonverbal, or written, and should be timely, contingent, genuine, meaningful, age appropriate, and at rates commensurate with task and phase of learning (i.e., acquisition, fluency, maintenance). Teachers should provide ongoing feedback until learners reach their established learning goals.	

Note. As discussed in the Preface, two research syntheses were developed for the practice of providing effective feedback; this item appears in both the Social/Emotional/Behavioral Practices HLPs and the Instruction HLPs.

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There is a common misconception that high rates of positive reinforcement will do "harm" to students' intrinsic motivation or "don't work." *Positive reinforcement* means that when the environment contingently follows a student's behavior with an action, and that behavior maintains or increases, whatever followed the behavior is reinforcing to the student. Just like academic skill mastery, if teachers want students to build social behavior skill mastery they must provide specific, contingent feedback. If students make social behavior learning errors, (i.e., problem behavior), feedback should focus on what social skill the student should have used (Lewis, Jones, Horner, & Sugai, 2010). If students demonstrate the appropriate social skill, feedback should acknowledge student effort and include the classroom expectation or rule (e.g, "I see you are working hard to be a 'respectful' learner: You are working quietly so others can learn").

The idea that students should always be motivated intrinsically simply is not possible. Activities that are *intrinsically motivating* are those that in and of themselves are reinforcing to the individual (Ryan & Deci, 2000). Unfortunately, most students do not find writing reports or solving algebra problems intrinsically motivating. What special educators should do is use actions and activities that are extrinsically motivating, but work toward student self-regulation of those motivators. For example, the goal is for students to complete a difficult math assignment not because the assignment is intrinsically motivating (i.e., inherently fun and enjoyable) but rather because they choose to engage in the task (i.e., self-regulation) because they know it will lead to an outcome that is reinforcing (i.e., free time, acknowledgment from parents—both of which are extrinsic motivators; Ryan & Deci, 2000).

Just like academic skill mastery, if teachers want students to build social behavior skill mastery they must provide specific, contingent feedback.

Research Support

From early seminal work such as the "good behavior game" (Medland & Stachnik, 1972) and Brophy's (1981) work on key teacher behaviors within effective classrooms, there is a strong literature base to support the use of positive specific feedback to acknowledge and increase academic and social skill mastery (Alberto & Troutman, 2013; Darch & Kame'enui, 2004; Lewis et al., 2010; Nelson & Roberts, 2000; Simonsen & Myers, 2105; Stichter & Lewis, 2006; Sutherland, Alder, & Gunter, 2003; Sutherland, Wehby, & Copeland, 2000; Sutherland et al,, 2002). The theoretical work to disprove the impact of acknowledgment is limited and often misinterprets conceptual frameworks or demonstrates limitations of external motivators within constrained research methodology (Ryan & Deci, 2000).

Conclusion

Confusion over terms such as *intrinsic* and *extrinsic* motivation, *reinforcement*, *rewards*, *praise*, and similar terms continues—often intentionally by authors wishing to push their theoretical view, and many times inadvertently by well-meaning educators. If educators want to teach skills to mastery and have them maintained and generalized beyond the school day, specific positive feedback, as well as corrective instructional feedback when learning errors occur, is an essential and crucial element of the teaching and learning process. This simple yet highly effective element of learning environments promotes both academic and social success.

HLP9	**Teach social behaviors.**
Teachers should explicitly teach appropriate interpersonal skills, including communication, and self-management, aligning lessons with classroom and schoolwide expectations for student behavior. Prior to teaching, teachers should determine the nature of the social skill challenge. If students do not know how to perform a targeted social skill, direct social skill instruction should be provided until mastery is achieved. If students display performance problems, the appropriate social skill should initially be taught, then emphasis should shift to prompting the student to use the skill and ensuring the "appropriate" behavior accesses the same or a similar outcome (i.e., is reinforcing to the student) as the problem behavior.	

An often noted concern regarding students with disabilities is their struggles to interact socially with adults and peers in appropriate ways. Regardless of disability category or overall emphasis of the student's individualized education program, for most students special educators should include social skill instruction as part of their daily curriculum. Similar to academic skills, social skills should be taught through direct instruction, students should be given multiple opportunities to practice targeted skills, and positive specific feedback should be given when targeted social skills are displayed (Sugai & Lewis, 1996). There are specific, empirically validated components of effective social skill instruction, including assessing and identifying students' social skill patterns, using a "tell–show–practice" instructional format, and assessing students' skill mastery and generalization across time and settings.

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Although there are several quality social skill curriculums widely available, most approach social skills as if the student has a skill "deficit"; that is, the student does not know how to display the appropriate social skill. For students with moderate to severe disabilities, including autism spectrum disorder and intellectual disability, this might be the case. For most students with mild disabilities, however, social skill challenges are often "performance" problems. In other words, the student knows what social skill they should use under specific conditions (e.g., "count to 10 when I get angry") but displays an inappropriate skill because it leads to outcomes that maintain the problem skill (e.g., "if I throw things, I am removed from the classroom and I am no longer angry"). It is essential to match the focus and outcome of each social skill lesson to the student problem type (i.e., deficit or performance).

Within each lesson, the special educator should first identify and define the social skill and when to use it (e.g., "When you are angry, the first thing you do is stop"). Second, after discussing what it means to *be angry* and a range of ways to "stop," (*tell*), the teacher should demonstrate (*show*) a range of appropriate ways to stop and also inappropriate ways to stop (i.e., the non-example or social skills the student is currently using that have been labeled inappropriate). Following examples and non-examples, the student should practice using only the appropriate social skill through role plays.

Teaching social skills within a small group format is generally straightforward and successful; the challenge is promoting generalization and maintenance of learned skills. Strategies such as teaching directly within targeted settings, providing frequent prompts or reminders to use newly learned skills, and providing high rates of positive specific feedback are all empirically validated strategies to promote generalized responding over time.

Research Support

With hundreds of social skill instruction investigations conducted to date, the evidence of effectiveness for these strategies has long been established (Ang & Hughes, 2001; Beelman, Pfingsten, & Losel, 1994; Cook et al., 2008; Losel & Beelman, 2003; Gresham, 2002b; Mikami, Jia, & Na, 2014). As with all interventions as broad and encompassing as "social skill instruction," contra-indicated findings on effectiveness also exist (e.g., Quinn, Kavale, Mathur, Rutherford, & Forness, 1999). However, when intervention is matched to a presenting problem, sufficient treatment dosage is in effect, and contextual factors are programmed into instruction to promote generalized findings, social skill instruction continues to demonstrate improved social functioning among students with disabilities (Gresham, 2002a; Gresham, Sugai, & Horner, 2001).

Conclusion

The ability to interact with adults and peers and to manage one's own behavior across settings is essential to student success.

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Unfortunately, students with disabilities often do not master these essential social skills in ways typically developing children do and therefore these must be explicitly taught. Social skill instruction has been found to improve social functional from preschool through adulthood, across a variety of social skill challenges, and among a range of disabilities. The balance of the empirical evidence indicates that social skill instruction, paired with generalization strategies, can lead to improved social-emotional functioning of students with disabilities.

HLP10	**Conduct functional behavioral assessments to develop individual student behavior support plans.**
Creating individual behavior plans is a central role of all special educators. Key to successful plans is to conduct a functional behavioral assessment (FBA) any time behavior is chronic, intense, or impedes learning. A comprehensive FBA results in a hypothesis about the function of the student's problem behavior. Once the function is determined, a behavior intervention plan is developed that (a) teaches the student a pro-social replacement behavior that will serve the same or similar function, (b) alters the environment to make the replacement behavior more efficient and effective than the problem behavior, (c) alters the environment to no longer allow the problem behavior to access the previous outcome, and (d) includes ongoing data collection to monitor progress.	

Functional behavioral assessments (FBA) are routinely conducted—and in some instances required by Individuals With Disabilities Education Act (IDEA; 2006) regulations—to determine what occasions and what maintains current patterns of student problem behavior. Using indirect methods such as rating scales, interviews, and archival data search (e.g., student file, discipline and attendance reports) and direct methods that involve a trained observer watching during problematic periods, hypotheses regarding the possible function of the problem behavior are developed using the following format (Lewis, Mitchell, Harvey, Green, & McKenzie, 2015):

- When [*conditions that trigger problem behavior, such as a worksheet that requires extensive writing*],
- The student will [*target problem behavior*],

- To get or avoid [*the outcome that maintains the behavior, such as getting peer attention or avoiding difficult tasks*].

Once a hypothesis is developed, a behavior support plan to address the function of the problem behavior is developed which includes a plan to teach a pro-social replacement behavior that results in the same or similar outcome (e.g., get attention or avoid a difficult task; Scott & Kamps, 2007). The plan should also include classroom and other learning environmental modifications that ensure (a) that when the student demonstrates the replacement behavior, the same or similar outcomes occur at high rates (e.g., student raises hand, teacher immediately recognizes and reinforces the student to give high rates of attention); and (b) that if the student demonstrates the problem behavior, the hypothesized function of the behavior is not accessed (e.g., student calls out instead of raising hand, teacher ignores and attends to a peer who did raise hand; Scott & Kamps, 2007).

Research and Policy Support

Given the highly individualized nature of the FBA–behavior support plan process, the majority of research conducted to date has employed the use of single-subject designs. Since the early 1980s, FBA research has moved from clinical settings targeting young adults with severe cognitive impairments (Carr & Durand, 1985; Iwata, Dorsey, Slifer, Bauman, & Richman, 1982) to a variety of school, home, and community settings focusing on students with mild disabilities (Lalli, Browder, Mace & Brown, 1993; Northup et al., 1981) as well as students at risk for disabilities (Kamps et al., 1995; Kern, Childs, Dunlap, Clarke & Falk, 1994; Lewis & Sugai, 1996a, 1996b; Umbreit, 1995). Since 1997, IDEA regulations have required FBAs be conducted if students with disabilities are removed from school due to disciplinary infractions 10 days or more (34 C.F.R. § 300.530), and a wide range of studies have been conducted across multiple groups of research teams (e.g., Gage, Lewis, & Stichter, 2012; Solnick & Ardoin, 2010; Wood, Blair, & Ferro, 2009). FBA-based interventions have been found to be more efficient and effective in reducing challenging behavior among students with disabilities and those at high risk than non-function-based interventions (Gage et al., 2012; Ingram, Lewis-Palmer, & Sugai, 2005; Liaupsin, Umbreit, Ferro, Urso, & Upreti, 2006; Newcomer & Lewis, 2004; Park & Scott, 2009; Payne, Scott, & Conroy, 2007; Stichter, Lewis, Johnson, & Trussell, 2004).

Conclusion

FBA-based intervention planning has a wide range of empirical work to support its use as an effective practice in addressing intensive challenging behavior. There is no clearly delineated set of practices that make up a comprehensive FBA, but the elements listed above are routinely cited in the relevant research. Although the nature of conducting FBA-based intervention research

does not lend itself to the current What Works Clearinghouse requirement for multiple randomized control trials, both the Institute of Education Sciences and the Council for Exceptional Children have created guidelines for the inclusion of single-subject research to be considered in establishing evidence-based practices. Based on the studies cited here, as well as numerous others, the practice may be considered as meeting the minimal standards for being evidence-based.

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