

STRATEGIES FOR TEACHING STUDENTS

WITH LEARNING AND BEHAVIOR PROBLEMS



TENTH EDITION



SHARON VAUGHN
CANDACE S. BOS

Tenth Edition

Strategies for Teaching Students

with Learning and Behavior Problems

Sharon Vaughn

Candace S. Bos



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To Jane Vaughn and Lucy Vaughn, who practiced progress monitoring by asking me regularly how far I was and whether I would finish the book on time.

About the Author

SHARON VAUGHN (Ph.D., University of Arizona) holds the H. E. Hartfelder/Southland Corporation Regents Chair in Human Development and is the Executive Director of the Meadows Center for Preventing Educational Risk at the University of Texas. She is a recipient of the CEC Research Award and the AERA Special Education SIG distinguished researcher award. She was the editor-in-chief of the *Journal of Learning Disabilities* and the coeditor of *Learning Disabilities Research and Practice*. Dr. Vaughn is the author of numerous books and research articles that address the reading and social outcomes of students with learning difficulties, including *Teaching Students Who Are Exceptional, Diverse, and At Risk in the General Education Classroom* with Jeanne Schumm and Candace Bos (5th ed., Allyn & Bacon). Currently, she is the principal or coprincipal investigator on several Institute for Education Science, National Institute for Child Health and Human Development, and Office of Special Education Programs research grants investigating effective interventions for students with learning disabilities and behavior problems as well as students who are English language learners.



Preface

While traveling by car on a typical Arizona scorcher between Phoenix and Tucson after attending a state Association for Children and Adults with Learning Disabilities meeting, Candace Bos and I were discussing the content and assignments for the methods courses we taught at our respective universities. The conversation inevitably drifted to what we would like to do better. Because both of us were responsible for preparing teachers and potential teachers to work effectively with students who have learning and behavior problems, we spent a considerable amount of time discussing the content of our classes. We concluded that we would like the class and the textbook for the class to provide adequate background in procedures for teaching skill and content areas such as reading, math, oral and written expression, and social and study skills. We also would like our students to understand which methods are most effective with what types of students and why.

The first edition of this book was the result of that initial lengthy discussion, which focused on the ideal content that would prepare teachers to meet the needs of elementary and secondary students with learning and behavior problems. Each new edition continues to present fresh ideas and information, always while keeping sight of our original purpose.

New to This Edition

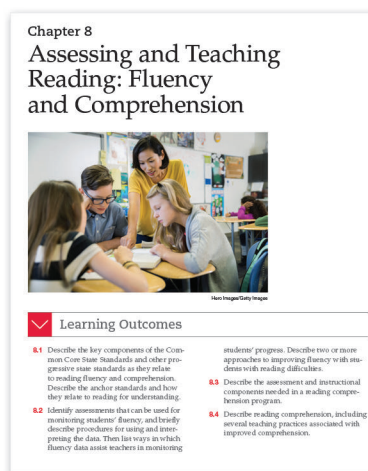
- Emphasis and integration of the Common Core State Standards (CCSS) throughout the text.
- Coverage of response to intervention (RTI) has been updated to include the multi-tiered system of support.
- All academic areas have been updated to reflect the emphasis on higher-level thinking, including reading comprehension and complex texts as well as problem solving, fractions, and algebra.
- Increased emphasis on classroom management and positive behavior support, both in the target chapters and throughout the book.
- Key research and practice opportunities have been updated and enhanced.
- The strategies infused throughout the text remain and have been extended, based on current knowledge.



Chapter-by-Chapter Revisions

Chapter 1: Monitoring and Teaching for Understanding

- Streamlined to ensure that the essential information is highlighted.
- A new *Web Resources* replaces the old *Tech Tips*.



Chapter 2: Approaches to Learning and Teaching

- Significant changes ensure that only the most relevant approaches to teaching students with learning and behavior problems are addressed.
- Revised to increase emphasis on how teachers can implement effective instruction for students with learning and behavior problems.

Chapter 3: Response to Intervention and Multi-Tiered System of Support

- Updated with the most relevant research on RTI and with additional information on multi-tiered levels of support.

Chapter 4: Managing Behavior and Promoting Social-Emotional Learning

- Updated to emphasize classroom management practices, including how to effectively manage behavior problems as well as increasing on-task behavior to improve learning.

Chapter 5: Coteaching, Collaborating, and Differentiating Instruction: Working with Professionals and Families

- Revised to reflect special education teachers' increasing coteaching and collaboration with other professionals.
- Updated practices and strategies to ensure success in coteaching and collaboration.

Chapter 6: Assessing and Teaching Oral Language

- Updated with new practice ideas as well as videos to improve oral language instruction.

Chapter 7: Assessing and Teaching Reading: Phonological Awareness, Phonics, and Word Recognition

- Updated research and content to demonstrate the latest practices in assessing and teaching reading

Chapter 8: Assessing and Teaching Reading: Fluency and Comprehension

- Updated with increasing emphasis on comprehension and content area reading
- Updated with increasing emphasis on reading after grade 3.

Chapter 9: Assessing and Teaching Writing and Spelling

- Updated with instructional practices in writing that are associated with improved outcomes and that can be readily applied in both the general education and special education setting.

Chapter 10: Assessing and Teaching Content-Area Learning and Vocabulary

- Revised to provide additional coverage of vocabulary instruction.

Chapter 11: Assessing and Teaching Mathematics

- Updated to reflect CCSS and emphasis on fractions and algebra.

5.4 Apply the Concept

Coteaching Perceptions

Consider asking and answering these questions with your coteacher as a means for determining areas of strength and potential areas to focus on within your coteaching setting.

1. We both have equal access to all information about general education students in the class?
2. We both have equal access to all information about special education students in the class?
3. We both are perceived by key administrators as appropriate contacts for issues about the class?
4. We both are perceived by parents as appropriate contacts for issues about the class?
5. If a problem with a student arises, we are both comfortable addressing it and communicating with each other about it?

6. We have adequate time to plan?
7. We both have access to materials in the classroom?
8. The desks and chairs for both teachers are equivalent?
9. Decisions about what to teach are shared?
10. Decisions about how to teach are discussed and agreed upon?
11. Decisions about adaptations to meet the special learning needs of students are discussed and agreed upon?
12. Decisions about adaptations to tests and other evaluations are discussed and agreed upon?
13. We provide each other with feedback that is useful and improves our instruction?
14. We coteach effectively and with few difficulties?
15. We respect the contributions of our coteacher?
16. We communicate and problem solve problems effectively?

Text Organization and Special Features

From that conversation many years ago, we determined three important goals for this text:

1. *Foundations.* To provide information about general approaches to learning and teaching so that the foundation for the methods and procedures for teaching all learners can be better understood.
2. *Detailed methods.* To supply descriptions of methods and procedures that include sufficient detail so that teachers and other professionals know how to use them.
3. *Organization and planning.* To present information about classroom and behavior management, consultation, and collaboration with families and professionals so that beginning teachers can develop a plan of action for the school year and experienced teachers can refine these skills.

To help meet these goals, a number of special features have been developed. *Apply the Concept* and *Evidence-Based Practice* features, for example, give special educators hands-on classroom implementations in reading, writing, content areas, and mathematics that are proven successful for all students, including those with learning and behavior problems.

Instructional Activities

This section provides instructional activities that are related to reading comprehension and fluency. Some of the activities teach new skills, others are best suited for practice and reinforcement of already acquired skills. For each activity, the objective, materials, and teaching procedure are described.

Web Resources

Several websites provide excellent examples of lesson plans that may assist you in designing effective instruction for your students.

<http://www.teachmeanthefirst.org/teachers>

(Click on Teachers, and you'll be able to locate lessons, professional development, and videos.)

<http://www.meadowmountain.org/>

(Click on resources, and you'll have access to sample lessons and rubrics.)

<http://www.interventionsforreading.org/>

(Check out the intensive intervention tools chart and sample lessons.)

Choral Reading

Objective: To provide students with opportunities to practice reading aloud rapidly, accurately, and expressively with the teacher.

Grades: Kindergarten through primary

Materials: Reading passages

Teaching Procedures:

1. Provide each student with a copy of the reading passage.

2. Model fluent reading of the passage by reading aloud. The teacher reads the passage accurately with prosody and on the pace.

3. Students read along with the teacher the second time the passage is read. This strategy can be implemented individually, in whole groups, or in small groups.

(Source: Adapted from University of Texas Center for Reading and Language Arts [2009].)

Partner Reading

Objective: To improve students' reading accuracy and rate.

Grades: Elementary through secondary

Materials: Reading passages, graph paper, colored pencils, timer for the teacher

Teaching Procedures:

1. Pair students, using the following procedure: (a) Rank the students according to reading ability. (b) Split the list in half. (c) Pair the top-ranked student in the higher-performing half (partner 1) with the top-ranked student in the lower-performing half (partner 2), and so forth.

2. Give each pair two copies of the reading passage at the instructional level of the less fluent student. (Instructional reading level means that the reader can decode about 90% of the words correctly.)

3. Remind students of the procedures for partner reading: (a) read for 1 minute only; (b) correct errors (omissions, additions of words, stopping more than 1 second, etc.); (c) do the best 1-minute reading (while timed); (d) calculate the fluency rate; and (e) graph the fluency rate.

4. Have partner 1 model fluent reading for 4 minutes while partner 2 follows along and identifies and corrects errors. Partner 2 should use the following procedure for error correction:

a. Say "Sound it out."

b. Wait 4 seconds.

c. If the partner figures out the word, say, "Good. Now reread the sentence."

d. If the partner doesn't figure out the word, say, "That word is . . . What word?" Wait for the partner to respond. . . . Say, "Good. Now reread the sentence."

5. Have the students reread the passage for 1 minute (best reading), with partner 1 reading first. Partner 2 follows along, marks errors, and marks the last word read at the 1-minute mark.

6. Have the students calculate their fluency during the 1-minute best reading using WCPM. This is found by subtracting the number of errors from the total number of words read: (Total - errors = fluency).

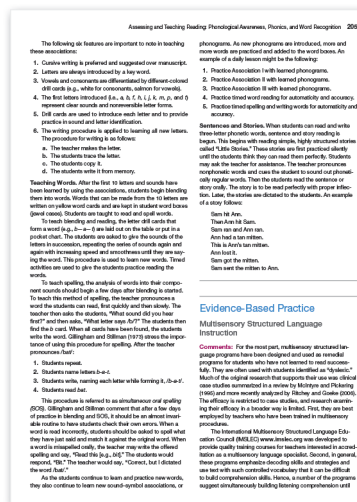
7. Have the students graph their fluency using colored pencils and graph paper, as shown in Figure 8.15.

(Source: Adapted from University of Texas Center for Reading and Language Arts [2009].)

Phrase Card Reading

Objective: To help students improve their reading rate and accuracy.

Grades: Elementary through intermediate



MyLab Education

One of the most visible changes in the new edition, and one of the most significant, is the expansion of the digital learning and assessment resources embedded in the etext through the inclusion of MyLab Education in the work. MyLab Education is an online homework, tutorial, and assessment program designed to work with the text to engage learners and to improve learning. Within its structured environment, learners see key concepts demonstrated through real classroom video footage, are given opportunities to practice what they learn, and can test their understanding and receive feedback to guide their learning and to ensure their mastery of key learning outcomes. Designed to bring learners more directly into the worlds of students with special needs and the educators who work with them, the online resources in MyLab Education with the Enhanced Etext include:

Video Examples

In all chapters, embedded videos provide illustrations of special education principles or concepts in action. These video examples show students, teachers, and families working in classrooms and/or providing their perspectives about real life situations.

Self-Checks

In each chapter, self-check quizzes help assess how well learners have mastered the content. The self-checks are made up of self-grading multiple-choice items that not only provide feedback on whether questions are answered correctly or incorrectly, but also provide rationales for both correct and incorrect answers.

Application Exercises

These scaffolded analysis exercises are built around the scenarios that open each chapter, describing the experiences

of elementary, middle school, and high school students as they relate to the topics discussed in each chapter. In the Back to the Cases feature at the end of each chapter, readers are challenged to apply what they have learned to the students they met at the beginning of the chapter. The questions in these exercises are usually constructed-response. Once learners provide their own answers to the questions, they receive feedback in the form of model answers written by experts.

IRIS Center Resource links provide readers access to The IRIS Center at Vanderbilt University, founded by the U.S. Department of Education's Office of Special Education Programs (OSEP), which develops training enhancements material for pre-service and in-service teachers. The Center works with experts from across the country to create challenge-based interactive modules, case study units, and podcasts that provide research-validated information about working with students in inclusive settings. This content has been integrated throughout the text, where appropriate.

Support Materials for Instructors

The following resources are available for instructors to download on www.pearsonhighered.com/educators. Instructors enter the author or title of this book, select this particular edition of the book, and then click on the "Resources" tab to log in and download textbook supplements.

Instructor's Resource Manual and Test Bank (0134791908)

The Instructor's Resource Manual and Test Bank includes key topics for mastery, lecture-discussion outlines, invitation for learning activities, and think-and-apply questions for the basis of class discussions or for use in exams. Some items (lower-level questions) simply ask students to identify or explain concepts and principles they have learned. But many others (higher-level questions) ask students to apply those same concepts and principles to specific classroom situations—to actual student behaviors and teaching strategies.

PowerPoint™ Slides (0134791916)

The PowerPoint slides include key concept summarizations, to enhance learning. They are designed to help students understand, organize, and remember core concepts, skills, and strategies.

TestGen (0134791924)

TestGen is a powerful test generator available exclusively from Pearson Education publishers. You install TestGen on

your personal computer (Windows or Macintosh) and create your own tests for classroom testing and for other specialized delivery options, such as over a local area network or on the Web. A test bank, which is also called a Test Item File (TIF), typically contains a large set of test items, organized by chapter and ready for your use in creating a test, based on the associated textbook material. Assessments—including equations, graphs, and scientific notation—may be created for both print and testing online.

The tests can be downloaded in the following formats:

TestGen Testbank file: PC

TestGen Testbank file: MAC

TestGen Testbank: Blackboard 9 TIF

TestGen Testbank: Blackboard CE/Vista (WebCT) TIF

Angel Test Bank (zip)

D2L Test Bank (zip)

Moodle Test Bank

Sakai Test Bank (zip)

Acknowledgments

Candace S. Bos and I launched this book together as junior faculty 30 years ago. Since her death, I have done one of the most challenging things of my professional career: writing and revising the book without my dear friend and colleague. I knew what an outstanding writer and teacher-educator she was; I know even better now. Working on this book is a clear reminder of how much she taught me and how hard it is to work without her. I am very appreciative of Janelle Rogers, who provided editorial support and suggestions that improved this edition of the book. Max Chuck, developmental editor, provided valuable suggestions and advice on previous editions.

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Most important of all, we would like to thank the teacher whose observations, research, and thinking has done more to guide our development and the field of special education than any other: Samuel A. Kirk.

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Chapter 1

Monitoring and Teaching for Understanding



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Learning Outcomes

- 1.1** Recognize characteristics of students with learning disabilities and how these characteristics influence learning.
- 1.2** Recognize characteristics of students with behavior disorders and how these characteristics influence learning.
- 1.3** Identify the multiple ways in which individuals with learning disabilities are identified.
- 1.4** Be able to contribute to an individualized education program (IEP) on a target student with disabilities.
- 1.5** Summarize the critical components related to effectively teaching students with learning and behavior problems.

This book is about children and adolescents who have difficulty learning and interacting successfully in school. If you saw these children in school, it is very likely that you would not be able to readily identify them until they were engaged in an academic activity that challenged them (e.g., writing, reading) or they were exhibiting

extreme behaviors (e.g., screaming). What are these students like? Teachers describe them this way:

Servo is extremely sensitive and gets upset at the least little thing. For example, yesterday Jo'Jame walked by his desk and bumped into him, and he jumped up and starting screaming at him. He got very aggressive,

and if I had not intervened I strongly suspect there would have been a fight. He used to throw things at school, but he doesn't do that anymore. He doesn't have any friends in the class, and most of the other students don't want him around them. Sometimes he is very quiet and almost cooperative, but these times only last until someone does or says something he doesn't like.

Dana has a great deal of difficulty with her work. She appears to have trouble remembering. Well, not always. Sometimes she remembers how to read a word; other days she looks at the same word, and it's like she has to scan all of the information in her head to try to locate the name of the word. I know she is trying, but it is very frustrating because her progress is so slow. She is also very easily distracted. Even when the instructional assistant is working with her alone, she will look up and stop working at the slightest things. Something like the air-conditioning going on and off will distract her from her work. I know she is bright enough, but she seems to have serious problems learning.

Tina is more work for me than the rest of my class put together. She has both academic problems and behavior problems. For example, after I have explained an assignment to the class, Tina always asks me several questions about the assignment. It's like I have to do everything twice, once for the class and then again for Tina. She has a terrible time with reading. She reads so slowly, and she often reads the wrong word. For example, she will say "carrot" for "circus" and "monster" for "mister." She often doesn't know what she's read after she's finished reading it. Also,

she can never sit still. She is always moving around the room, sharpening her pencil, getting a book, looking out the window. It is hard for her to do the same thing for more than a few minutes. She's always bugging the other students. She's not really a bad kid, it's just that she is always doing something she's not supposed to be doing, and she takes a lot of my time.

The purpose of this book is to acquaint you with the teaching and communication skills and strategies necessary to understand and teach students like Servo, Dana, and Tina. This chapter provides background information on students with learning and behavior problems and an overview of the teaching-learning process. This chapter also introduces the multi-tiered system of supports (MTSS) or response to intervention (RTI) as a framework for facilitating identification of students with learning and behavior problems.

As you read this book, we encourage you to reflect on how the information presented can be interwoven into your understanding of the teaching-learning process. We encourage you to seek opportunities to work with students with learning and behavior problems and to use the research-based practices presented in this book in seeking supervision and feedback from well-prepared professionals. We also encourage you to use a reflective, problem-solving orientation to teaching. This model of teaching and learning serves as a framework for reflecting on what you do, consulting with others to seek better information and practices, and making adjustments to improve outcomes for students with learning and behavior problems.

Students with Learning and Behavior Problems

Most educators can recognize with little difficulty those students who have learning and behavior problems. They are students who call attention to themselves in the classroom because they have difficulty learning and/or interacting appropriately. Students with learning and/or behavior problems manifest one or more of the following behaviors:

- *Poor academic performance.* Students display significant problems in one or more academic areas such as spelling, reading, and mathematics. The key to understanding students with learning disabilities is that they display unexpected underachievement. What do we mean by unexpected underachievement? This means that students have the cognitive processes to succeed academically and perform well in one or more other academic areas but have a significant difficulty in one or more areas such as spelling, writing, reading, and/or math.

- *Attention problems.* Many students seem to have difficulty working for extended periods on a task. They may have trouble focusing on the teacher's directions. These students are often described by teachers as being easily distracted. They have a difficult time completing tasks, and because their mind wanders, they miss critical information.
- *Hyperactivity.* Some students are overactive and have a difficult time staying in their seats and completing assigned tasks. They move from task to task, and often from location to location in the classroom. When working on an assignment, the least little noise will distract them.
- *Memory.* Many students have a hard time remembering what they were taught. Often their difficulty remembering is associated with symbols such as letters and numbers. These students may remember something one day but not the next.
- *Poor language abilities.* Many students with learning disabilities have language difficulties that are manifested in a number of ways; for example, they may have

underdeveloped vocabulary or have difficulty summarizing clearly what they know or have experienced. Some of these students demonstrate speech or language problems that can be corrected through speech therapy. Many also have difficulty developing phonological awareness skills—hearing the sounds of language separately and being able to blend and segment them (e.g., hearing /b/, /a/, /t/ separately and then blending to say “bat”). Students may have difficulty with vocabulary, understanding the concept, using language to adequately express themselves orally or in writing, or developing age-appropriate math skills.

- *Aggressive behavior.* Some students are physically or verbally assaultive. They may hit, kick, get into fights, and/or verbally threaten or insult others. These children are easily upset and cope with being upset by acting out.
- *Withdrawn behavior.* Some students seldom interact with others. Unlike shy students, who may have one or two friends, these students are real loners who avoid involvement with others.
- *Bizarre behavior.* Some students display unusual patterns of behavior. They may stare for long periods at objects that they hold in the light, they may sit and rock, or they may display aggressive behaviors at times and withdrawn behaviors at other times.

Students with learning and/or behavior problems often exhibit more than one of these behaviors. Yet some students exhibit these behaviors and are not identified as having learning or behavior problems. Teachers consider other factors when determining how serious a learning and behavior problem is.

Factors in Determining the Severity of a Learning or Behavior Problem

From 15% to 25% of all students have some type of learning or behavior problem; however, students with learning disabilities and behavior problems that are identified as requiring special education represent a much smaller percentage of the student population (typically less than 6%). Students with learning disabilities are five times more prevalent than those with behavior disorders. Of course, this could be because teachers and parents are not inclined to identify students as having a significant behavior problem that constitutes a disability. You must consider several factors when determining the seriousness of a problem and whether the student’s behavior represents a disability:

1. *Persistence of the problem.* Sometimes a student has a learning or behavior problem for a short time, perhaps while the family is experiencing some type of crisis, and then it disappears. These behaviors and feeling states are not considered problems if they occur occasionally. Other students display persistent learning and behavior problems

throughout their schooling experience. These problems have more serious consequences for the students.

2. *Severity of the problem.* Is the student’s learning or behavior problem mild, moderate, or severe? Is the student performing slightly below or significantly below what would normally be expected of that student? Is the behavior slightly different or substantially different from that of the student’s peers? It is expected that the behavior may be severe in one area—for example, the student may have a severe learning problem in the area of reading.

3. *Speed of progress.* Does the student appear to be making steady progress in the classroom despite the learning or behavior problem? We do not expect all students to learn at the same rate. In fact, in an average fourth-grade classroom, the range of performance varies from second-grade level to seventh-grade level. However, a critical question is whether the student is responding appropriately to classroom instruction and making at least 1 year’s growth academically every year and there is an expectation that they can successfully engage in grade-level learning.

4. *Motivation.* Is the student interested in learning? Does the student persist at tasks and attempt to learn? Does the student initiate and complete tasks without continual praise and encouragement?

5. *Parental response.* How do family members feel about their child’s academic and/or behavioral progress? How do they think it compares with the child’s progress in the past? Are they concerned about how their child’s abilities compare with those of other children the same age? How have siblings performed in school?

6. *Other teachers’ responses.* How did the student perform in previous classes? What do previous or other teachers say about the student’s learning, academic abilities, and behavior?

7. *Relationship with the teacher.* What type of relationship does the student have with the present teacher? Sometimes a poor interpersonal match between the student and the teacher may interfere with the student’s academic performance and/or behavior.

8. *Instructional modifications.* What attempts has the teacher made to modify the student’s academic and/or behavioral program? Does the student seem responsive to attempts at intervention? If the student is not performing well in a traditional reading program, has the teacher tried other instructional approaches to reading? Has the student had opportunities to work with different students in the class? If the problem is behavior, what behavior change programs have been implemented? Have any been successful?

Is there a good match between the student and the classroom setting? Some children function best in a highly structured classroom where the rules, expectations, and assignments are very clearly stated. Other children function better in a learning environment that has more flexibility.

9. *Adequate instruction.* Has the student had adequate exposure to the material and enough time to learn? Some

students have little experience with formal learning situations before coming to school. Other students have multiple experiences, including preschool programs that teach how to self-regulate behavior and pre-academic skills such as letters, letter sounds, and number sense. Students who have less exposure to school learning situations or whose parents provide few school-like learning experiences may need more time and exposure to the learning environment before they make gains. Determine what prerequisite skills are missing and how they can be acquired.

10. Behavior–age discrepancy. Does the student display problems that are unusual or deviant for the student’s age? What types of behaviors is the student exhibiting that are or are not age appropriate?

11. Other factors. Are other factors possibly contributing to the student’s learning and/or behavior problems? For example, how closely do the student’s background experiences, culture, and language match those of the teacher and other students in the class? Might any health-related factors be interfering with the student’s learning or behavior? Have the student’s vision and hearing been adequately assessed to determine whether they might be affecting the student’s learning or behavior?

Considering these factors will help you to identify the severity of the student’s problems and determine whether the student needs additional classroom supports.

The Defining Features of Special Education

How does special education for students with learning and behavior problems differ from a good general education? Consider the following six features of instruction that, according to Heward (2017), define effective instruction for students with learning and behavior problems:

1. *Individually planned.* Instruction, materials, and setting of instruction are selected or adapted on the basis of student needs.
2. *Specialized.* Instruction and adaptations include related services and assistive technology that are not often a part of the general education curriculum.
3. *Intensive.* Precise, targeted instruction is designed to assist students in making efficient progress toward gaining necessary skills and strategies.
4. *Goal-directed.* Instruction focuses on individual goals and objectives necessary for student success.
5. *Employ research-based methods.* Selection and application of effective teaching methods are supported by research.
6. *Guided by student performance.* Student response to instruction is continually assessed for use in evaluating the effectiveness of instruction and adjusting instruction when necessary.

Heward (2017) further states that teachers may hold misunderstandings about teaching and learning that interfere with successful delivery of special education for students with disabilities. For example, many educators and administrators are taught that a structured curriculum including instruction and practice in individual skills is unnecessary and harmful to students’ general learning. Contrary to this belief, students with learning and behavior problems often need academic tasks broken down into smaller, obtainable skills in order to progress.

A guiding principle of special education is that it is goal directed and guided by student performance. Evidence-based instruction is the ongoing alignment of appropriate instruction based on an ongoing system of measuring students’ progress. Therefore, assessment of student outcomes is needed to guide appropriate instruction and to move students as quickly as possible to ensure student success in academics and related areas. This means that instruction must be focused and provided with a sense of urgency. Unstructured lessons and activities without regard for effectiveness can be detrimental to students with learning and behavior problems. These students need the very best instruction using research-supported techniques to ensure that time is not wasted and teachers are providing opportunities for students to gain the necessary abilities and obtain the motivating experience of success. One of the primary goals of a special education is to accelerate the positive behavior and educational outcomes of students with learning disabilities and behavior problems. Throughout this book, we will demonstrate effective instructional techniques in reading, written expression, math, and other content areas for students with learning and behavior problems.

Learning and Educational Environments for Students with Learning and Behavior Problems

Most students with learning and behavior problems are educated in the general education classroom. For example, 87% of students with speech and language problems spend more than 80% of their time in the general education classroom. These percentages are considerably lower for students with learning disabilities and significantly lower for students with behavior problems (identified as emotional disturbance). According to the U.S. Department of Education, National Center for Education Statistics (2016), 45% of students with emotional disturbance and 68% of students with learning disabilities spend 80% or more of their time in general education. These students with severe learning and behavior problems may receive a range of support services, including reading or math support, counseling, individualized instruction with a teaching assistant, and special education.

In many elementary schools, reading or math specialists assist students with learning problems; however, they

1.1 Apply the Concept

Paraprofessionals: Roles and Supports

- Paraprofessionals play an integral role in the behavioral support and learning of many students with learning and behavior problems, including provision of one-on-one instruction, behavior supports, teaching social skills, supporting instruction in the general education and special education classroom, clerical support to the teacher, and building effective relationships with target students to improve motivation and engagement.
- Paraprofessionals benefit from working with a teacher or teams of teachers who display an openness and support for the benefits they provide.
- Paraprofessionals display improved confidence and skills when provided clear direction about what is expected of them and appropriate guidance and training to implement these expectations successfully.
- Paraprofessionals benefit from training, communication, monitoring, feedback, and ongoing support and appreciation for their assets.

do not replace the essential work of the general education teacher. These specialists typically provide supplemental instruction to the regular reading or math instruction the students receive in the general education classroom. Such additional instruction can help students with learning problems make sufficient progress in reaching expected performance levels. Often, specialists and classroom teachers collaborate to ensure that the instruction they provide is consistent and follows a similar sequence of skills.

Some classroom teachers have a teaching assistant or paraprofessional who provides supplemental instruction for students with significant learning or behavior disorders. You may find yourself in a situation in which you are supervising one or more paraprofessionals. Paraprofessionals may not have the instructional background that specialists do. Therefore, it is imperative that teachers provide them with sufficient guidance and feedback. This includes planning lessons, training in effective instruction for students with learning problems, and monitoring instruction. When paraprofessionals are provided with appropriate instructional tools for teaching students with learning problems, the supplemental help they provide often assists students in making the necessary progress to learn at expected levels. Did you know that now more paraprofessionals than certified special education teachers are working in special education (www.ideadata.org)? See Apply the Concept 1.1 to identify the roles and supports for paraprofessionals.

Students with disabilities receive services through special education. PL 94-142, reauthorized in 2004 as the Individuals with Disabilities Education Act (IDEA), ensures that a continuum of placements is available for students. This continuum is conceptualized as proceeding from the least to the most restrictive. The term *restrictive*, in an educational sense, refers to the extent to which students are educated with peers without disabilities. A more restrictive setting is one in which students spend no part of their educational program with peers without disabilities. In a less restrictive setting, students may spend part of their educational day

with peers without disabilities. IDEA mandates that all students should be educated in the least restrictive educational environment possible (IDEA, 2004).

Including Students with Learning and Behavior Problems

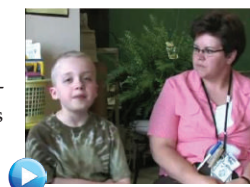
When students with special needs are included in the general education classroom, either their specialized services are provided within the general education class, or they are pulled out of the classroom for a portion of the day to receive the services. How do schools and teachers decide if a student should be included for all or part of the school day?

MyLab Education

Video Example 1.1

In this video, a 4th grader with learning disabilities shares his experiences in the general education classroom.

Do you feel the supports and services that were put in place for him were successful and, if so, how is this demonstrated?



The decision to include a student with special needs is made by an individual educational planning and placement committee. This committee is typically made up of one or both of the child's guardians, the special education teacher, the general education teacher, relevant professionals such as the school psychologist, and the administrator who supervises the special education program in which the student participates. At the recommendation of the special education and general education teachers and the professionals who evaluate the student's progress, the committee collectively decides whether the student's social and educational needs would best be met in the general education classroom and writes up the individualized education program (IEP) accordingly. What types of information do special education teachers use to determine inclusion in general education? The answer varies

by district and school, and several essential information sources are helpful:

- Based on classroom observations, how is the target student performing in the general education classroom? What supports does the student need to ensure success?
- Based on progress monitoring and other assessment data, how effectively is the student learning in the general education classroom? What supports does the student need to ensure success?
- Has the target student been provided intensive interventions? If yes, how has the student responded to these interventions?
- What types of classroom-based interventions have been provided, and how effective have they been?
- What views and insights do the parents hold about the student's performance and inclusion in the general education classroom?
- What views do previous teachers and educational specialists hold about the student's performance in the general education classroom?

The goal is to provide students with an appropriate education with access to the general education classroom. For students to receive special education that is outside of the general education classroom, evidence that the students' educational and social needs are better met in the special education classroom is required. Most students with emotional and learning disabilities spend at least some of their school day in general education classrooms with their peers without disabilities. Therefore, both general education and special education teachers are often responsible for the instruction and outcomes of students with disabilities.

In 1975, Public Law 94-142 was passed, providing an opportunity for all students with disabilities to achieve an appropriate education. Thirty-five years later, **The Department of Education** reported on the national impact of IDEA, including the following key impacts from the report, *Thirty-Five Years of Progress in Educating Children with Disabilities Through IDEA, 2004*:

- More young children with disabilities receive high-quality early intervention.
- More children with disabilities are attending neighborhood schools and receiving access to the general education curriculum.
- More youth with disabilities are graduating from high school.
- More youths with disabilities are enrolled in postsecondary programs.
- More young adults with disabilities are employed.

For students between the ages of 3 and 5 years, 49% spent 80% or more of their time with typical achieving peers. Where were students with learning disabilities and

behavior disorders educated? Almost 59% of students identified as having specific learning disabilities spent 80% of their time in general education classrooms, whereas only 37% of students identified as having emotional disturbances were in general classrooms for that same amount of time. It is quite likely that fewer students identified as having serious emotional disturbances are in general education because their behavior interferes significantly with the academic progress of others in the classroom.

IDEA introduced the concept of a continuum of placements, including the *least restrictive environment* (LRE).

Since its passage in 1997, there

has been a growing interest in educating students with disabilities with their peers who are nondisabled. IDEA contained a strong mandate to provide greater access to the general education curriculum. As more students with special needs are placed in general education classrooms, with special education teachers consulting or collaborating with classroom teachers, the emphasis on consultation/collaborative models has increased.

Why is inclusion important for students with learning and behavior problems? Students want to succeed in the general education classroom with age-similar peers. The vast majority of students with learning disabilities and behavior problems profit from extensive time in the general education classroom when instructional and behavioral supports meet their needs. Because students with learning disabilities exhibit significant difficulties in one or more academic areas (e.g., reading, math, writing), it is likely that they will also require more intensive academic support in their areas of need.

Lawmakers intended for students with special needs who are included in the general education classroom to receive accommodations for their learning and/or emotional needs within the classroom. The special education teacher, as consultant/collaborator with the general education classroom teacher, is to facilitate the implementation of the student's IEP and then promote effective practices and planning to ensure appropriate instruction is given. Working cooperatively with the special education teacher, the general classroom teacher is responsible for planning, monitoring, and delivering the instruction or intervention the student needs.

Most secondary-level (middle and high school) classroom teachers stated that they had not used IEPs or psychological reports to guide their planning for special education students. They had, however, gathered information from the families and former teachers of students with special needs. Some teachers said that they had very little contact with the special education teacher who monitored their students with special needs, and they were not aware that the students had IEPs. A few teachers had no contact with a special education teacher and were unaware that they even had a student with special needs in their class. In such cases, there was clearly a lack of communication between

See Chapter 5 on coordinating instruction with families and other professionals.

the special education teacher responsible for monitoring the progress of the students with special needs and the general classroom teacher.

Web Resources

For further information on inclusion issues and activities that may be helpful in the classroom, take a look at the Center for Parent Information and Resources (CPIR) at <https://www.parentcenterhub.org>.

Identifying Students with Learning Disabilities

What issues relate to appropriate identification of students with learning disabilities? Individuals with learning disabilities have typically been identified through referral by classroom teachers or families, followed by a complete battery of assessments designed to identify whether the students meet criteria as having learning disabilities. Typically, these assessments include an intelligence quotient (IQ) determination and an achievement test. If students' IQ scores are a certain number of points above their achievement scores (i.e., a large discrepancy between the IQ and achievement scores), the students are identified as having a learning disability because of their "unexpected underachievement." Considerable concern has arisen about the appropriateness of administering IQ tests to students, particularly minority students. Additionally, administration of IQ tests may not be justified because the extent to which the IQ–achievement discrepancy is an appropriate measure for identification of learning disabilities has been questioned (Bradley, Danielson, & Hallahan, 2002; Branum-Martin, Fletcher, & Stuebing, 2012; Stuebing et al., 2002).

Web Resources

The International Dyslexia Association provides excellent background information on students with reading disabilities: <http://www.interdys.org>.

What is IQ–achievement discrepancy, and what are the concerns about using it? IQ–achievement discrepancy is the common practice by which the IQ test (e.g., a cognitive or intelligence test that is typically individually administered and provides an estimate of overall ability) and standardized achievement scores (e.g., an individually administered test of reading or math that typically is norm referenced) of students are compared, in the belief that a significant discrepancy (higher IQ scores than achievement scores on one or more relevant outcomes) is a strong indicator of learning

disabilities. The four specific concerns about this practice are as follows:

1. The discrepancy is difficult to determine with young children and may unnecessarily postpone identification until second grade or later; this concern highlights why some refer to the IQ–achievement discrepancy as the "wait to fail" model.
2. Many young children aged 5 to 7 benefit greatly from prevention programs, particularly in reading, that could keep them from developing greater difficulties in reading or math.
3. Formal IQ and achievement tests are expensive to administer and interpret, and the money might be better used to provide instruction.
4. IQ tests provide little information to teachers to assist them in improving or modifying their instruction.

What are alternatives to traditional IQ–achievement discrepancy approaches for identifying students with

Further information about RTI is presented in Chapter 3.

learning disabilities? The most frequently suggested alternative is RTI. Though the exact use and application of RTI vary somewhat depending on who is describing it, RTI typically involves a multi-tiered system of interventions, a data collection system that informs decision making, and ongoing progress monitoring. The number of tiers, what data are collected, and the measures used to determine if a child is "responding" to an intervention might differ depending on the school and content area. RTI can also be conceptualized as a systematic application of data-based decision making to enhance outcomes for all children (D. Fuchs, Fuchs, & Compton, 2012; Vaughn & Fletcher, 2012). RTI provides a preventive approach to special education and promotes early screening and interventions so that students at risk for academic or behavior difficulties are provided with timely and appropriate services.

RTI addresses concerns about the IQ–achievement discrepancy because students begin to receive help as soon as they start demonstrating academic or behavior difficulties, regardless of what grade they are in. In addition, many students need only an "extra boost" to succeed in the general education classroom. For those students, future reading difficulties may be prevented by early intervention. Students who respond adequately to the intervention and can make appropriate progress in the classroom are considered high responders to the intervention; typically, they do not need further intervention and are unlikely to require special education. Students whose response to the intervention is low may be referred for further evaluations and considered for special education (L. S. Fuchs & Vaughn, 2012; Vaughn & Fuchs, 2006). To determine if a student has responded to an intervention, the measures used for screening and progress monitoring are typically quick and easy to administer and are directly related to skills needed for academic or behavior success in the

1.2 Apply the Concept

Adopting a Multi-Tiered System of Supports (MTSS) or Response to Intervention (RTI) Model to Identify Students with Learning Disabilities

The reauthorization of the Individuals with Disabilities Education Act (IDEA) recommends that states and schools abandon the IQ–achievement discrepancy to identify students with learning disabilities and instead use a multi-tiered system of supports (MTSS) or response to intervention (RTI) approach. For the purpose of this book, the terms MTSS and RTI are used synonymously.

IDEA does not require that schools use MTSS or RTI to identify students with disabilities. Your principal asks your opinion on what your school should do to identify students with learning disabilities.

What are the pros and cons of the IQ–achievement discrepancy and RTI? Which model do you recommend that your school use in determining special education eligibility?

In August 2006, regulatory guidelines for implementing RTI were published (U.S. Department of Education, 2006a, 2006b). Key aspects of the guidelines include the following:

- State criteria must not *require* but may *permit* school districts to use a severe discrepancy between intellectual ability and achievement to identify students as having a learning disability.
- State criteria must permit the use of a process based on children's responses to scientific, research-based intervention, that is, an appropriate RTI model.

- When determining specific learning disabilities (SLDs), personnel must determine whether children are making age-appropriate progress or making progress to meet state-approved grade-level standards.
- Lack of achievement may not be due to lack of appropriate instruction in reading or math. Thus, if the student has had inadequate or inappropriate instruction in the general education classroom, significant and intensive supplemental instruction is required before placement in special education.
- There are many models or frameworks for implementing RTI. To illustrate, some districts use a problem-solving model in which they implement research-based practices by using a team of professionals to make ongoing decisions, whereas other school districts use a standardized approach in which research-based interventions are provided routinely by well-trained professionals.
- Though specific procedures are not described, the importance of timelines and structured communication with family members is emphasized.
- Frequent and ongoing assessments to determine response to intervention can be determined by the state.
- RTI as a means for identifying students with learning disabilities is not a substitute for a comprehensive evaluation.
- No single procedure can be relied on to determine whether a student qualifies for special education.

classroom. Therefore, these measures help teachers pinpoint where a student is having difficulties and alter or improve their instruction accordingly (see Apply the Concept 1.2).

The National Association of State Directors of Special Education (NASDSE) has developed readily accessible guides to RTI that are available on its website, as well as the publication *Response to Intervention: Policy Considerations and Implementation* (National Association of State Directors of Special Education, 2006). Also, the **National Center on RTI** provides numerous resources related to assessment and identification as well as RTI.

Developing an Individualized Education Program

What is an IEP, and what is the process for developing and updating an IEP? Procedures for setting goals and planning instruction are designated by law for students who have been identified as requiring special education services (including students with learning or emotional disabilities).

IDEA requires that an IEP be developed for each student with special educational needs. A multidisciplinary team develops, implements, and reviews the IEP, which is both a process and a document. The process involves a group of individuals, often referred to as the IEP team, using assessment information, eligibility, and the needs of the student to establish an appropriate specialized educational program for a student with disabilities. The document is a record of the decisions that have been agreed upon by the team and a guide for improving student outcomes. The IEP must be reviewed annually and can be revised at any time to address lack of expected progress, the results of any re-evaluations, or other relevant information provided by either the school or family members. Figure 1.1 presents a sample IEP completed for John, a fifth grader with learning disabilities.

The members of the multidisciplinary team include the following people:

- A representative of the local education agency—an administrator who is qualified to supervise services to students with disabilities and who is knowledgeable about the general education curriculum as well as resources and services available.

Figure 1.1 Sample Individualized Education Program

Individualized Education Program			
I. Demographic Information			
Last	First	M.I.	Date
<i>Smith</i>	<i>John</i>	<i>E.</i>	<i>May 12, 2019</i>
Student I.D.	Address	Home Phone	Work Phone
<i>2211100</i>	<i>23 Lakeview St., Collier, MN 32346</i>	<i>(459)555-5555</i>	<i>(459)555-5000</i>
Age	Grade Level	Home School	Program Eligibility
<i>11</i>	<i>5</i>	<i>Lakeview Elementary</i>	<i>Learning Disabilities</i>
Reason for Conference:		<input type="checkbox"/> Staffing <input checked="" type="checkbox"/> Review	
II. Conference			
Parent Notification			
Attempt #1:	Attempt #2:	Attempt #3:	
<i>Letter: 3-02-19</i>	<i>Phone call: 3-13-19</i>	<i>Notice sent home with student: 3-22-19</i>	
Parent Response:		<i>Will attend as per phone call on 3-13-19</i>	
III. Present Levels of Educational Performance			
<i>John is a 5th grade student whose disability inhibits his ability to read required material. John can read 35/100 in two minutes from a 4.0 grade level paragraph and 45/100 in two minutes from a 3.0 grade level paragraph. John can answer 8/10 literal questions and 4/10 inference questions from a 4.0 grade level passage read to him.</i>			
IV. Annual Goals and Short-Term Benchmarks			
<p>1. John will increase reading fluency to the 4.0 grade level.</p> <p><i>John will read orally a passage at the 4.0 grade level in 2 minutes with 50 or more words correct.</i></p> <p><i>John will use correct intonation and prosody when reading orally a passage at the 4.0 grade level 50% of the time.</i></p> <p>2. John will improve the percentage of accuracy when responding to literal and inferential questions.</p> <p><i>John will answer literal questions from a 4.0 grade level passage read to him with 75% accuracy.</i></p> <p><i>John will answer inferential questions from a 4.0 grade level passage read to him with 90-100% accuracy.</i></p> <p>Describe the extent to which the student will not participate in general education settings and explain why the student cannot be placed in general education settings.</p> <p><i>John will not participate in general education settings for language arts, science, and social studies instruction. John requires close supervision when completing tasks, high levels of assistance, and intensive, systematic instruction.</i></p>			
V. Related Services			
Type of Service, Aid or Modification	Location		Time per day/week
Assistive Technology:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Adaptive PE:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Audiology Services:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Counseling:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Interpreter:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Medical Services:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Occupational Therapy:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Orientation/Mobility:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Physical Therapy:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Psychological Services:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Special Transportation:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Speech/Lang. Therapy:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<i>Self-contained class, 30 min./wk.</i>	

(continued)

Figure 1.1 (Continued)

VI. Assessment Participation		
Will the student participate in state and district assessments: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If yes, what accommodations or modifications will be provided?		
<input type="checkbox"/> None	<input checked="" type="checkbox"/> Flexible Setting	<input type="checkbox"/> Flexible Presentation
<input type="checkbox"/> Flexible Responding		<input checked="" type="checkbox"/> Flexible Scheduling
If no, indicate why state and district assessments are inappropriate:		
VII. Transition Planning/Statement		
<input checked="" type="checkbox"/> Under 14: Transition planning not needed.		
<input type="checkbox"/> 14–15 years old: Statement of transition services needed that focuses on student's course of study.		
<input type="checkbox"/> 16 years old: Outcome statement that describes a direction and plan for the student's post-high school years from the perspective of student, parent, and team members.		
VIII. Scheduled Report to Parents/Guardians		
<i>John's parents will be informed of progress toward his annual goals via parent/teacher conferences and interim report cards (4 times per year). Parents will be notified of goals that have been met and the rate of progress toward meeting all of the annual goals.</i>		
IX. Initiation/Duration Dates		
Special education and related services will initiate <u>September 2019</u> , through <u>June 2020</u> (MM/YY) (MM/YY)		
IX. Persons Attending Conference		
Signature	Position	Date
<u>Mary Smith</u>	<u>Parent</u>	<u>May 12, 2019</u>
<u>Jonathan Smith</u>	<u>Parent</u>	<u>May 12, 2019</u>
<u>Laura Jones</u>	<u>Special Education Teacher</u>	<u>May 12, 2019</u>
<u>Rafael Gonzalez</u>	<u>General Education Teacher</u>	<u>May 12, 2019</u>
<u>Larry Brick</u>	<u>IEA Representative</u>	<u>May 12, 2019</u>
<u>Harrison Washington</u>	<u>School Psychologist</u>	<u>May 12, 2019</u>
<u>John Smith</u>	<u>Student</u>	<u>May 12, 2019</u>

- Parent(s) or guardian(s).
- Special education teacher.
- At least one general education teacher if the student is participating or is likely to participate in general education classes.
- Evaluator—someone who can interpret the results from the student's educational, psychological, and/or behavioral evaluations.
- Student, if the teachers and parents determine that it is appropriate for the student to attend the IEP meeting.

If transition services are being discussed, the student must be invited to participate.

- Other professionals as appropriate. Parents or the school may invite others who can provide information or assistance, such as an interpreter, therapist, or other personnel who work with the student, or a student advocate such as parents' friends or lawyers.

Writing Effective IEP Goals

IEP writing is a team process and involves all members, including the teachers and parents, as a means of ensuring an effective IEP. What should be included in the IEP? According to Section 514(d)(1)(A) of IDEA (2004), as of July 1, 2005, the IEP must include the following nine elements:

1. The student's current levels of educational performance and social-emotional functioning, including how the student's disability affects the student's involvement and progress in general education settings.
2. Measurable annual goals that address the student's individual learning needs and that, to the extent possible, enable the student to participate in and progress in the general education classroom.
3. Special education, related services, and supplementary aids and services to be provided to the student, including program modifications or supports for school personnel that will be provided for the student.
4. An explanation of the extent to which the student will not participate in general education classes.
5. A statement indicating how the student will participate in state- or districtwide assessments and outlining any modifications and accommodations to be provided during testing. If the student will not participate in state or district assessments, the IEP must include an explanation of why the student will not participate and how the student will be assessed.
6. When special education services will begin, as well as the frequency, location, and duration of services and modifications.
7. How progress toward annual goals will be measured and how the family will be regularly informed of progress toward these goals. IDEA mandates that parents/guardians be updated on their children's progress toward IEP goals and objectives when report cards are issued for all students.
8. Explanation of transition services at age 16, including measurable postsecondary goals, to help the student prepare for a job or college by taking appropriate classes and/or accessing services outside of school.
9. A list and signatures of the committee members present.

A major part of the IEP involves the annual goals. An annual goal usually covers an entire school year. According to IDEA (2004), short-term objectives are also included for students who take alternate assessments aligned to alternate achievement standards. Short-term objectives are smaller steps that help the student reach the annual goal. Completion of related sets of short-term objectives should lead to accomplishment of the annual goals developed by the multidisciplinary team. Figure 1.2 shows an example of an annual goal and short-term objectives. Goals can address academic, social-emotional, or functional needs. The written statements of annual goals must meet certain requirements. According to Gibb and Dyches (2000), annual goals must

- Be measurable.
- Tell what the student can reasonably achieve in a year.
- Relate to helping the student succeed in general education settings and/or address other educational needs ensuing from the disability.
- Include short-term objectives.

Figure 1.2 Sample Goal and Short-Term Objectives in an IEP

Annual Goal:

Lisa McKinney will achieve a math score at the fourth-grade level or above on the Mathematics Achievement Assessment.

Short-Term Objectives

1. *Lisa will demonstrate mastery of multiplication and division facts (0–10) by completing weekly one-minute timed multiplication and division fact math tests with 90% accuracy.*
2. *Given 10 three-digit-by-two-digit multiplication problems, Lisa will solve the problems with 90% accuracy.*
3. *Given 10 two-digit-by-one-digit division problems, Lisa will use long division to solve the problems with 90% accuracy.*
4. *Given 10 one-step word problems, Lisa will identify the operation (addition, subtraction, multiplication, or division) and solve with 90% accuracy.*
5. *After correctly solving five one-step word problems, Lisa will describe with 80% accuracy (either orally to the teacher or in writing) how she got her answers.*
6. *Given daily teacher-prepared "problem-of-the-day" assignments, Lisa will copy each problem into her math notebook and work cooperatively with a partner to solve it, showing work and the correct solution four out of five times.*

Consider SMART as a guideline for writing IEP goals:

- **Specific.** Be sure the goals that you write are very specific about the academic and social/behavioral expectations you have for the target student.
- **Measurable.** Write goals in ways that you can measure whether the student has achieved them. For example, “student will be referred to the office for inappropriate behavior 2 or fewer times each month.”
- **Achievable.** Establish goals that reflect high expectations but are also reasonable for the student to achieve.
- **Relevant.** Determine goals that are relevant to the student and reflect the school context and future goals.
- **Time Limited.** Specify the time frame in which the goal will be achieved, and identify the time frame as 1 year or less.

For IEPs that also include short-term objectives, Gibb and Dyches (2000) suggest the following:

- Describe the behavior in an observable, measurable way (e.g., “Luis will add two-digit numbers”).
- Include the circumstances under which the behavior will take place (e.g., “given manipulatives and peer assistance”).
- State the criterion for mastery (e.g., “with 85% accuracy”).

During the IEP conference, family members and professionals work together to identify appropriate accommodations and modifications that will assist the student in learning skills in class. It is important to include teachers in decisions about accommodations and modifications because they are the ones responsible for implementing these in the classroom. For example, if the IEP team decides that a student needs a highlighted textbook in science, someone must be available to do the highlighting, or the accommodation cannot be carried out. Furthermore, effective communication systems must be in place so that all teachers and support personnel who will work with the student are aware of the accommodations and modifications that will be implemented. The processes involved in designing and implementing effective accommodations and modifications are discussed further in this chapter as well as in following chapters.

Writing IEPs can be challenging, and many teams use software and websites to facilitate their development. The most useful IEP software programs allow IEP team members to select from skill sequences and write long-term and short-term objectives, freely customizing skills and objectives to meet individual needs.

Often school systems or special education units adopt one particular IEP software application for use by its entire staff. You may find that to be the case in your school district. Some programs are installed in individual computers; others are Web based. Web-based systems are especially useful because you can access the data from any online computer.

It is also easier to transfer records as the child moves along in the educational process, from teacher to teacher and school to school.

Web Resources

Because the IEP-writing process is complicated, several software programs are available to help teachers. Following is a list of IEP management software names along with their primary Web addresses:

- IEPMaker Pro, by Chalkware Education Solutions at www.iepware.com.
- Class/Bridge IEP Program, by Class/Bridge at <https://abledata.acl.gov/product/classbridge-iep-program>.
- IEP Writer Supreme II, by Super School Software at www.superschoolsoftware.com.

Family Involvement

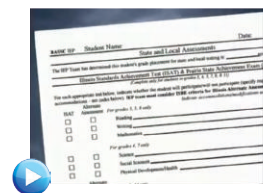
The IEP meeting is a way for family members and school personnel to communicate about the education of a student with disabilities. According to IDEA, “parents are considered equal partners with school personnel” in the IEP process. The IEP serves as a safeguard not only for students but also for families and the education team. All reasonable attempts to ensure the participation of family members in the IEP process should be taken:

- Schedule IEP meetings at times that are convenient for families, checking with them in advance to determine a suitable date, time, and location.
- Notify families well in advance of the meeting. Include in the notice the purpose, time, and location of the meeting and the names and positions of the people who will be in attendance. Parents/guardians should be involved in the decision about whether the student will attend.
- If family members choose not to attend even after reasonable efforts have been made to accommodate their schedules, the school should use other methods to involve them, including telephone calls or home visits. The school must document its attempts to involve family members.

MyLab Education

Video Example 1.2

This video includes a brief description of an IEP and offers a glimpse into an IEP meeting. The comprehensive needs of the students are discussed and the students’ parents are involved.



- The school must take measures to ensure that families understand IEP proceedings, including providing an interpreter if English is not their first language.
- Family involvement in the development of the IEP should be documented, and parents/guardians should receive a copy of the IEP.

Remember that often too much emphasis is placed on compliance rather than on genuine communication with family members (Harry, 2008; Harry & Klingner, 2014; L. Lo, 2012; Seligman & Darling, 2007). Educators are more effective when they consider the following:

- Educators and parents are working as a team for a common goal—the student’s success.
- Pay attention to when and why defensive behavior arises. Put your feelings aside, and help others, including family members, to build positive relationships. If the team is unable to act positively, postpone interactions until the defensiveness can be handled.
- Understand and consider the needs and interests of parents/guardians and their child. Consider what the issues and goals are from their perspective.
- Remember that most families are doing the best they can under the circumstances of their lives.

Student Involvement and Self-Determination

The self-directed IEP is designed to facilitate students’ participation in IEP meetings (Arndt, Konrad, & Test, 2006). By law, students need to attend IEP meetings only if appropriate. In practice, many students with learning and emotional disabilities do not attend these meetings, even when the students are in secondary-level settings and can provide information and contribute to decision making about their education. The benefits to involving students with disabilities in the IEP decision-making process include helping them develop a commitment to learning and a sense of responsibility and control over the decisions made regarding their learning.

Why do many students not attend the conferences? The primary reason is that they are not provided an opportunity. Providing students who are age appropriate with an opportunity to influence their educational program is an essential first step in ensuring that the program will succeed. J. E. Martin and colleagues (2006) describe a typical IEP process for secondary students with disabilities. The special education teacher at this meeting does most of the talking and directing (51%), with families doing considerably less (15%), and students the least (3%). Yet a

Chapter 5 describes strategies you can use for actively involving families in their children’s education, including planning and implementing programs.

student-directed IEP is likely to have considerable benefit in terms of both identifying appropriate goals and successfully motivating students to achieve those goals. What are some ways in which students might be successfully included in the IEP meeting?

- Have the student start the meeting and introduce self and others.
- Allow the student to direct the meeting, including telling the purpose of the meeting.
- With necessary supports, ask the student to review progress on previous goals.
- Provide ample support for teachers and parents to ask questions and provide information.
- Identify future goals and mechanisms for successfully reaching them.
- Consider asking the student the following questions:
 What are your goals in school?
 How successful have you been in meeting them?
 Are you working hard to meet goals?
 What are you doing well? What would you like to do better?
 What can we do to help you achieve your goals?
- Prompt the student to ask others at the meeting what they think of stated goals, progress, and future goals.
- Ask the student to specify the support needed to meet the agreed-upon goals.
- Encourage the student to summarize and close the meeting.

Including students in their IEP meeting can be an important step in enhancing students’ self-determination—the opportunity to make important decisions about their own lives and to be actively involved in decisions about their own learning. Self-determination is important because students who engage in self-determination have improved academic performance. Teachers can improve the self-determination of students in the IEP process by actively engaging students in the IEP development and the monitoring of their progress toward meeting IEP goals.

Key Elements of the Transition Planning Process

The primary objectives of the transition process for individuals with disabilities is the same as it is for all of us—as seamless a transition as possible to postsecondary settings and being able to function successfully in adult life (i.e., dealing reasonably well with the demands of adulthood). All of this is within the context of knowing that each of us struggles at times with the realities of everyday life.

As the teacher, how can you ensure that this successful transition happens? Ideally, the transition process starts very early and is considered every year as the student, teacher, and parents consider educational and behavioral goals.

The key elements of the transition planning process include proactive transition education, opportunities to dream about who you want to be and how you will achieve it, assessment of critical areas to help with decision making, transition planning, and opportunities to receive feedback about how you are performing and what you need to do to meet your goals.

The formal phase of the transition planning process begins with the comprehensive assessment of a student's transition needs. The general areas in which a transition-needs assessment should focus include a range of transition domains. The key transition areas that are identified by different states vary greatly; some of the more common transition planning areas are as follows:

- Community participation
- Daily living
- Employment
- Financial and income management
- Health
- Independent living (includes living arrangements)
- Leisure and recreation
- Postsecondary education
- Relationships and social skills
- Transportation and mobility
- Vocational training

It is important that a comprehensive transition-needs assessment consider all of these areas. If a needs assessment is conducted effectively, the results should lead to the development of transition-related goals. In some cases, the results will lead to the recognition that more in-depth information is needed.

The actual transition planning phase comprises goal development highlighting two types of goals and a number of activities that are needed to accomplish these goals. One type of goal is *instructional*, in that it focuses on knowledge and skill needs in academic, social, behavioral, and other functional areas. Goals that are instructional should be written into a student's IEP. The other type of goal emphasizes *linkage* to needed services and supports. These goals may be quick action items (e.g., a phone call to place one's name on a waiting list), or they may be more elaborate activities (e.g., going through the process of selecting an appropriate post-school training program). Most students will not require both types of goals for every transition area that is assessed.

The reauthorization of IDEA in 2004 introduced a new component to the transition process. IDEA regulations state:

For a child whose eligibility terminates under circumstances described in paragraph (e)(2) of this section, a public agency must provide the child with a summary of the child's academic achievement and functional performance, which shall include recommendations on how to assist the child in meeting the child's postsecondary goals. (Section 300.305(e)(3))

This new feature is designed to provide students, and their families, with a document that should be useful in a variety of adult settings (workplace, postsecondary education). The key features of the summary of performance document include generation of information on both academic and functional levels; a revisiting of "measurable" postsecondary goals; and a list of recommendations that will be helpful in settings related to the goals.

Aside from the implications that are stated in the federal definition of transition services, certain principles should guide the transition planning process. The Apply the Concept 1.3 highlights the four key guiding principles.

Instructional goals relate to knowledge and skills needs and should be written in the IEP as academic or social goals. *Linkage goals*—the types of goals that are typically

1.3 Apply the Concept

Guiding Principles for the Transition Planning Process

- The more that is known about the receiving settings and about the student's levels of competence to deal with these settings, the more likely a seamless transition can be achieved.
- The more comprehensive the transition-needs assessment is, the easier it is to develop useful and meaningful transition plans.
- Effective transition assessment and plans can be achieved only when school-based transition personnel know the student or have ways to inquire about the student.

- Student involvement in the transition planning process is not only highly desirable but also required by law (i.e., based on the student's preferences and interests).

Useful linkage-type goal statements should include the following four components, all of which contribute to development of an effective plan of action:

1. Present level of performance
2. Specific activities to be performed to accomplish the goal
3. Anticipated date of completion of activities
4. Person(s) responsible

associated with transition planning—focus on making connections to the supports and services that will be needed in postsecondary settings and are written in the section of the IEP that deals with transition services.

In the past, some states required another document, an individual transition plan (ITP), which was a separate document from the IEP, as the principal vehicle for guiding transition activities. Most states simply included transition goals as part of the existing IEP under a section typically called “Statement of Transition Services.” Historically, transition planning focused primarily on goals that we defined previously as *linkage type*. The emerging practice is to include all transition planning information on the IEP. The critical issue is the importance of considering both instructional and linkage goal statements for areas of need. In this **IRIS Module**, you can explore strategies to support students with disabilities as they transition out of high school and into the adult world.

For example, Sheila is a high school student with significant learning disabilities and behavior disorders. Her situation illustrates why two different types of goals often need to be developed. To develop an effective transition plan, information from key stakeholders, particularly the students, are needed. The following goals need to be developed for Sheila, based on numerous data sources, including findings from her transition planning inventory indicating that school personnel and Sheila herself perceived that she would have considerable challenges in succeeding in a postsecondary program. They agreed that Sheila needed:

- Assistance in understanding print materials, including materials from the Web, written directions, and other text sources necessary for postsecondary transition.
- Guidelines in supporting test taking.
- To acquire skills for time management and organization.
- Help understanding the purpose of the Students with Disabilities Office on campus.
- Assistance in organizing documentation of disability status.
- To develop a resource for obtaining tutoring and other supports.
- To develop a resource list for counseling and other supportive services.

Teaching Students with Learning and Behavior Problems

What goes into teaching students with learning and behavior problems? In the beginning of this chapter, we introduced three students, Servo, Dana, and Tina. Instruction for these students needs to be carefully orchestrated to take into account the interactive nature of their instructional needs

within an effective teaching–learning process. The *teaching–learning process* is a model of teaching and learning that takes into account the complexity of the learning environment or context, the knowledge and skills of the teacher and the learner, and the instructional cycle the teacher implements to facilitate learning. An effective teaching–learning process for students with learning and/or behavior problems is based on *individual programming*. Although students may be instructed in groups, the teacher plans and designs instruction for each student’s needs, realizing that students have both common and unique needs. The teaching–learning process is shown in Figure 1.3. It presents a reflective, problem-solving approach to teaching students with learning and behavior problems. Let us look first at the key players in this process: the learner and the teacher.

The Learner

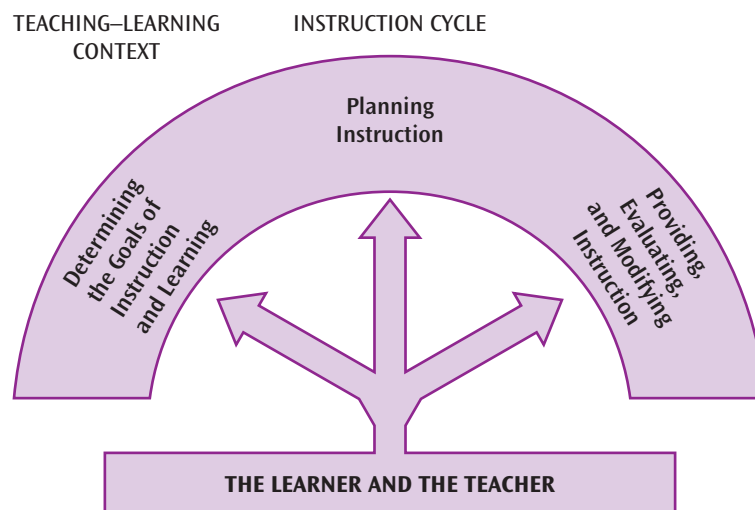
The learner brings to school knowledge and experiences on which to build, and strategies to assist in the learning process. Our assessment process focuses on determining the skills and knowledge the student has and needs to have to succeed at grade level.

Skills and knowledge not only play an important role in learning, but also influence the learner’s attitudes and efforts toward learning. Randy and Tamara illustrate this point. In fifth grade, Randy was determined to learn how to read, although at the time he was struggling with beginning reading books. He worked all year on his reading, and at the end of the year, he had grown in his reading skill by about one grade level. Still, he carried with him the attitude that reading was important and that he should continue to struggle with a process that for him was quite difficult. Tamara, in contrast, was a sixth grader who was reading at about the third-grade level. For her, learning to read was a much easier process, yet she finished the year making only marginal gains. Why? She believed that reading simply was not necessary for her life and that her future goal, being a mother, just didn’t require her to be a good reader. It is likely that these students’ attitudes influenced their rate of learning.

A student’s strategies for learning also affect the teaching–learning process. When you are told to read a chapter in a textbook and study for a test, what strategies do you employ? Do you preview the chapter before reading? Do you ask questions as you read to check your comprehension? Do you underline or take notes? Do you review your notes before the test, rehearsing the important points? These are all strategies that make you a more effective student.

The Teacher

The teacher brings to the learning situation teaching knowledge and skills; beliefs and attitudes about teaching, learning, and the world; and practices for influencing students’ learning and engagement.

Figure 1.3 The Teaching–Learning Process

As you read this section, reflect on your beliefs and attitudes about teaching, learning, and students who experience learning and behavior problems. What is the nature of learning, and what is the role of the teacher?

Learning can be perceived as changes in behavior that result in students' demonstrating new knowledge and skills. The role of the teacher is that of an educational technician who engineers instruction or arranges the environment so that the probability of learning and improved behavior is increased. This is accomplished by providing students with effective instruction and rewards for learning. An effective teacher conveys knowledge and skills in a systematic, explicit manner. This perception of learning and teaching is probably best reflected in applied behavior analysis. It is also reflected in instructional strategies and materials that are based on systematic ordering and teaching of skills.

Learning can also be perceived as a dynamic process in which students play an active role, constantly interacting with the environment and people around them. Not only do students' notions, ideas, and skills change in the learning process, but so does the environment in which learning takes place. Thus, learning is not merely the accumulation of knowledge and skills but also the active construction and transformation of ideas based on observations and experiences. This perception of learning is represented in schema theory. The teacher creates an environment in which students can take risks and develop flexible learning and thinking strategies as they acquire skills and knowledge.

For example, Ms. Kranowski, a special education teacher who works with students who have learning and behavior problems, has 11 students—fourth through sixth grade—in her self-contained class. Each day after lunch, they practice writing. Ms. Kranowski uses a process approach to teaching writing in which students select their own topics and write about them, sometimes taking several weeks to

complete a piece. Students usually write multiple drafts, sharing their work with other students and the teacher.

At first, the learners in Ms. Kranowski's class needed to develop a process for writing. They needed to develop purposes for their writing other than to please the teacher or to complete the worksheets. As the students became more confident of their drafts, they had to learn skills such as how to organize a descriptive paragraph and a story and how to use dialogue and quotation marks. Although Ms. Kranowski continues with this process approach to writing, she now also spends time teaching skills to small groups. She uses systematic skill lessons, modeling a skill, then having the students practice it in their own writing and in published and teacher-made materials. Whereas the first approach to teaching represents an interactive model of teaching and learning, during skill lessons Ms. Kranowski serves as the conveyor of knowledge by explicitly teaching systematic skill sequences. Ms. Kranowski's instruction shifts to reflect the needs of the students in her class.

How does Ms. Kranowski explain her simultaneous use of these different approaches to the teaching–learning process?

Well, when I first began using a process approach to teaching writing, I found that the students really learned to like writing. For me, that was a big accomplishment, since most of these kids had previously hated writing. But I also found that because these students have so many learning problems and take so much practice to learn a new skill, they just weren't getting enough opportunities to practice intensely a new writing skill when they were first trying to learn it. Consequently, they never learned the skills very well. Now, 2 days a week, we take about 20 minutes for a skill lesson. I select the skill according to the needs of the students as a group. Right now we are working on

dialogue and quotation marks. I introduce the skill and show how I use it in my writing. Then several of the students demonstrate how they can use it in their writing. We use an overhead projector, and they project their writing on the screen. We talk about how to add quotation marks, and they add them right then. For the next several weeks when they are writing their pieces, I encourage them to use dialogue, and we make an effort to compliment each other when the quotation marks are right. If the students need additional practice, I provide them with stories in which they have to add quotation marks to the writing. We also take turns reading stories and books that have lots of dialogue, and the students identify the dialogue and tell where the quotes go. I realize that this is really mixing two philosophies of teaching and learning, but for me it's the best way to get the job done.

The Instructional Cycle

Within the teaching–learning process, the *instructional cycle* helps to shape and sequence teaching and learning (refer to Figure 1.3 again). Based on progress monitoring relating to students' learning and behavior, Ms. Kranowski sets instructional goals; plans instruction; and provides, evaluates, and modifies instruction based on students' progress, which she monitors through ongoing assessment. She uses this cycle in a flexible way, taking into account the *characteristics of the learner*, her *teaching beliefs and attitudes*, and the *context* in which the teaching and learning are happening. Sometimes she changes her instructional goals on the basis of input from the students or feedback about rate of learning. Sometimes she modifies her plans and the way in which she instructs to reach her instructional goals more effectively. When Ms. Kranowski added skill lessons to the writing curriculum, she changed her plans, which resulted in changes in instruction. The features of effective instruction should be considered in developing and implementing each part of the instructional cycle.

Features of Effective Instruction

Effective instruction is tantamount to a balancing act. Some teachers appear to be magicians because they seem to effortlessly balance the various features of effective instruction. However, keeping this balance requires a clear understanding of each feature as well as knowledge about how and when to implement them. Following are some of the features of effective instruction that should be present in all teaching:

1. Assessing progress
2. Designing instruction
 - Determining goals of instruction
 - Flexible grouping
 - Adaptations

- Scaffolding
 - Careful use of instructional time
3. Delivering instruction
 - Quick pacing
 - Sufficient opportunities for student response
 - Error feedback
 4. Differentiating instruction
 - Using flexible grouping
 - Using learning stations or centers

These features will benefit all the students in a classroom, but they are particularly helpful for students with learning and behavior problems.

Web Resources

Two helpful resources on understanding effective instruction for students with learning disabilities are LD OnLine <http://www.ldonline.org> and Center on Instruction <http://www.centeroninstruction.org>.

Assessing Progress

Consider the range of students with learning and behavior problems. These highly diverse learners require differentiated instruction and differentiated assessment. Particularly important for these students is to ensure close linkage between assessment and instruction in the following ways (Tomlinson, 2003):

1. Use *preassessment* to determine what students know or need to know related to the learning or behavioral goal.
2. Use *ongoing assessment* to monitor students' progress toward their learning or behavior goals.
3. Use *self-assessment* so that students can monitor their goals and provide self-feedback on their progress.

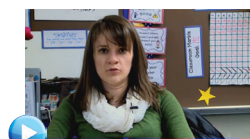
Progress Monitoring

Perhaps the most important aspect of assessment is progress monitoring. The goal of ongoing progress monitoring is to determine whether the instruction is effective and should be continued as currently implemented or whether adjustments are needed.

MyLab Education

Video Example 1.3

In this video, the teacher describes methods of monitoring student progress during a lesson and tracking performance during follow-up activities.



Progress monitoring is a form of assessment that is linked directly to instruction. Assessing progress means continually examining data from both formal and informal assessments to determine students' behavior, knowledge, and/or skills—in other words, to determine how students are making progress toward their goals. Teachers who use a variety of assessment tools to evaluate what students know and don't know are more likely to adjust their instruction to meet students' needs and have improved outcomes for students.

You can obtain information from reading inventories, standardized tests, observations, and student work samples to assist you in monitoring students' progress and to guide planning and instruction. Monitoring students will help you to determine when students might need a different instructional or behavioral program and whether you may need to adjust your instruction accordingly.

According to the instructional cycle (Figure 1.3), instruction is implemented after learning and instructional goals have been established and instruction has been planned. However, instruction is more effective and efficient if, at the same time the instruction is being implemented, it is also being evaluated and—based on the evaluation—modified.

As we evaluate, it is crucial to keep a written record of student progress. The written record provides a means for objectively reflecting on the data to determine whether progress is evident (e.g., Berkeley, Bender, Peaster, & Saunders, 2009; Deno et al., 2009). While progress monitoring is a useful tool, some teachers find that classroom management challenges and time demands interfere with effective implementation of progress monitoring. When used effectively, progress monitoring provides a written record for communicating with others regarding student progress. Sharing progress with parents, principals, other teachers, and—most important—the student provides a sense of accomplishment and satisfaction for all involved.

Having students monitor their own progress can increase their motivation for learning and pride in their accomplishments. Self-monitoring procedures have been used successfully with students who have learning and behavior problems, using the following procedures (see for more details, see Heward, 2009, pp. 428–429):

- With students, identify the academic and/or social behaviors that they will monitor. Specify them in terms that the student understands.
- Use procedures that make record keeping with self-monitoring easy: for example, a simple paper-pencil form, wrist counter, tally counter, or a software program.
- Provide prompts to remind the student to self-monitor. These prompts can be from the teacher, another student, or check marks on a paper that lists the cues for the student to monitor.
- Model the self-monitor. Show the student how to monitor, and model the monitoring for them.

- Encourage the student to self-monitor. Provide frequent feedback and support to students when they self-monitor. Observe changes in their behavior, and report these observations to the student as well as the parents.

Tools for Monitoring Progress

Although a teacher or student can use many methods to evaluate progress, generally one or more of three basic types are used: progress graphs and charts, performance records, and process records. Progress graphs are frequently used for measuring daily progress on individual skills or knowledge. Performance records are usually used for measuring progress across time (e.g., grading period, semester, and year). Curriculum-based measurement (<https://rti4success.org/essential-components-rti/progress-monitoring>) is an example of a performance record that is closely tied to the curriculum being taught. Curriculum-based measures not only focus on the progress that is evident in the curriculum, but also document progress in the learning process. Using a weekly assessment, teachers chart the progress students are making toward a goal and then adjust instruction to ensure adequate progress toward meeting that goal. Portfolios, learning logs, and dialogue journals can supplement the use of curriculum-based measures.

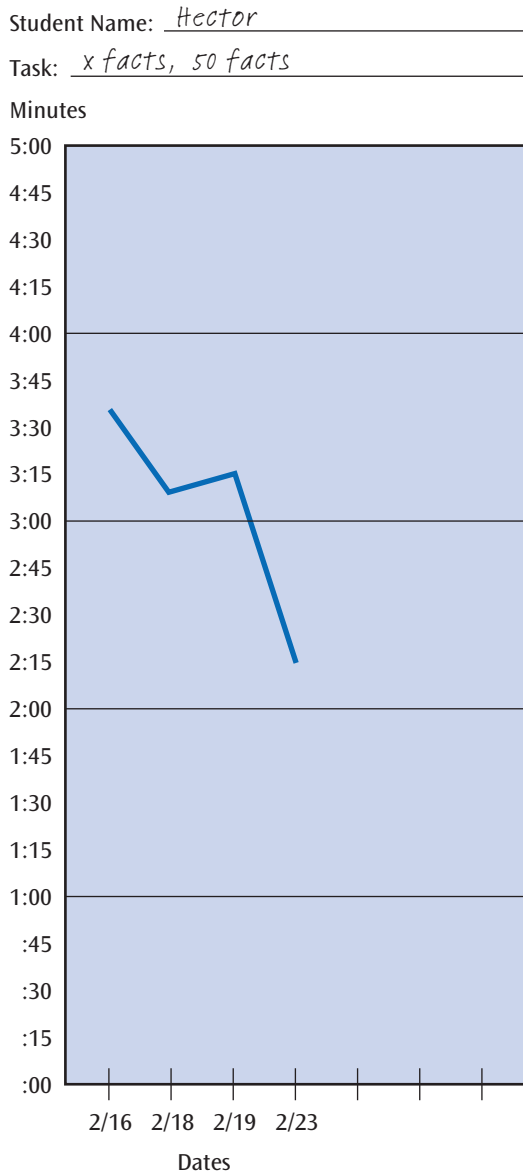
MyLab Education Video Example 1.4

A student charts his performance and monitors his progress. Consider the effects of such self-monitoring on students with learning and behavior problems.



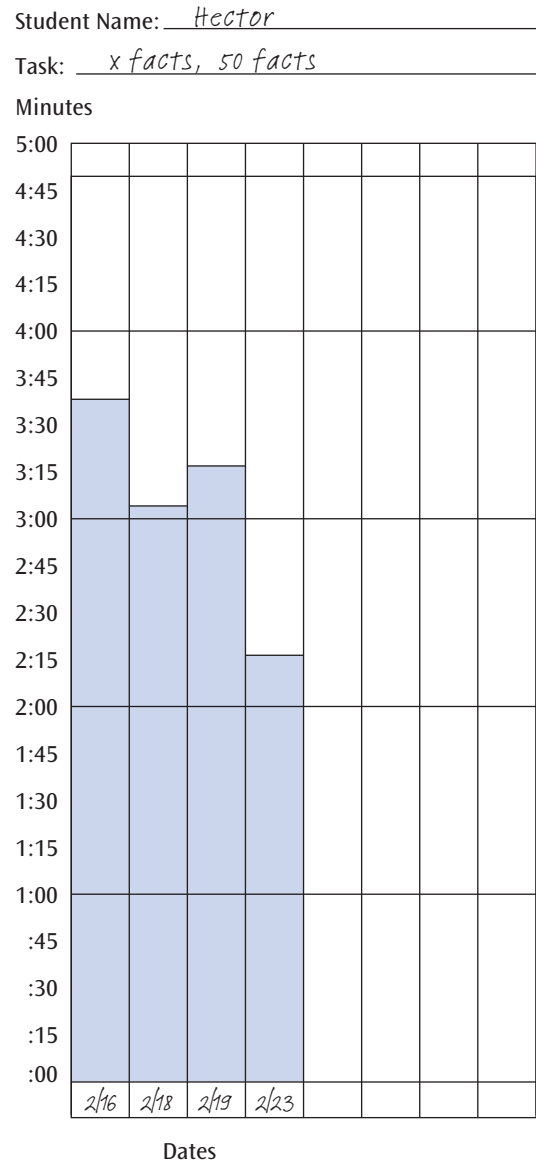
Progress Graphs and Charts Progress graphs and charts are generally used to measure progress on one behavior or skill. Graphs seem particularly well suited for self-monitoring because the results are displayed in such a manner that they are easy to interpret (see Figures 1.4 and 1.5). To be suitable for a progress graph, the behavior, skill, or knowledge must be quantifiable, either by time or by occurrence. For example, Ms. Shiller, a junior high teacher for a self-contained classroom of students with emotional disabilities, uses progress graphs for the following activities:

- Silent reading rate
- Speed in completing math facts
- Percentage of questions answered correctly for the social studies assignment
- Number of times the student disrupted other students during the morning independent learning activity
- Student and teacher rating of written pieces, based on interest and readability

Figure 1.4 Timing Chart Using a Line Graph

With a progress graph, the measurement unit is marked on the vertical axis. For example, *time* for graphing silent reading rate, *speed* for graphing math facts completed, and *percent* for graphing the percentage of social studies questions answered correctly would be marked on the vertical axis. On the horizontal axis, the occurrence unit is marked (e.g., date, teaching session, social studies assignment number). It is relatively easy to plot progress data on either a line graph, as depicted in Figure 1.4, or a bar graph, as shown in Figure 1.5.

Progress charts are usually used in the same manner as progress graphs: to measure progress on one skill or behavior. The difference between a progress chart and a progress graph is that with a chart, the score is reported but is not presented in a relational manner (see Figure 1.6). Although progress charts are generally more efficient in the use of space, they do not provide the clear visual representation of student performance; therefore, student progress or lack of it

Figure 1.5 Timing Chart Using a Bar Graph

is not so readily apparent. Consequently, graphing is generally recommended over charting for student self-monitoring.

Performance Records Performance records are often used to record student progress across a set of skills or knowledge and for a significant length of time. An IEP is a performance record in that annual goals and short-term objectives are written, and evaluation of the goals and objectives is recorded in the IEP (see Figure 1.1). Many school districts have developed skill and knowledge competencies or objectives that students need to attain at various grade levels. These are often arranged on an individual student performance record so that as a student becomes proficient in a listed competency, it can be noted (see Figure 1.7). Many commercial reading, math, writing, and other content area programs publish performance records so student progress can be recorded. One caution in using such performance

Figure 1.6 Progress Chart for Sight Words

Name: Lisa

	3/12	3/14	3/15	3/18
sometimes	+ + +	+ + +	+ + +	+ + +
everyone	- - 0	- 0 +	0 + +	+ + +
when	- - -	0 0 +	- 0 +	0 + +
themselves	- 0 +	0 + +	0 + +	+ + +
mystery	- 0 0	0 0 +	+ 0 +	+ 0 +
hurry	0 0 +	+ + +	+ + +	+ + +
their	- 0 -	0 + 0	+ 0 +	+ + +
friend	+ 0 +	+ + +	+ + +	+ + +
mountain	- 0 0	0 0 +	+ + 0	+ + +
trail	- + -	- 0 -	- + +	+ 0 +
route	- - 0	0 + 0	0 + 0	0 0 +

+ Correct and automatic
 0 Correct but not automatic
 - Incorrect

Figure 1.7 Competency-Based Performance Record

Student: Karen	
Competency Area and Skill	Mastery
<i>Early Reading</i>	
Identifies letters of alphabet	10/00
Names letters of alphabet	12/00
Holds book, turns pages one at a time	9/00
Looks first at left page, then at right	9/00
Distinguishes print from pictures	9/00
Scans left to right, top to bottom	9/00
Reads along listening to a familiar book	9/00
Rhymes words	11/00
Identifies words in a familiar book	10/00
<i>Beginning Reading</i>	
Reads simple stories (preprimer/primer)	3/01
Identifies consonant sounds	2/01
Identifies short vowel sounds	2/01
Identifies long vowel sounds	4/01
Identifies simple sight words in isolation	2/01
Recognizes that "s" makes words plural etc.	4/01

records is that although most of them measure proficiency, they do not measure maintenance, generalization, or application. Consequently, a teacher may receive a performance record on a student and find that the student cannot perform some of the skills that are listed as mastered.

In addition to collecting permanent products, the teacher and/or the students may want to keep a progress journal. Usually, this journal accompanies the performance record or progress graphs and charts, and provides the student or teacher with space in which each can write comments about progress. Ms. Shiller found that progress journals were particularly helpful for documenting progress regarding students' behavior. She used this method in combination with graphs to evaluate several students' progress. She found that her dated journal entries provided insights into how she might modify the instructional context and the instruction.

Curriculum-based measurement (CBM) is one system of performance records that highlights the close tie between curriculum and student performance, using frequent samplings from curriculum materials to assess students' academic performance (e.g., Christ & Ardoine, 2009; Espin et al., 2008; www.studentprogress.org). CBM has been used successfully for students who have learning and behavior problems to improve reading fluency, reading comprehension, spelling, and arithmetic computation in both general education and special education classrooms (e.g., Keller-Margulis, Shapiro, & Hintze, 2008). For example, reading fluency in a third-grade class can be measured each week by having each student read 100-word passages from the reading curriculum and graphing fluency rates across time. This type of measurement provides ongoing data for making instructional decisions. Teachers can assess changes

in student performance over time by considering level of performance as affected by instructional change, rate of learning (as reflected by changes in the slope of the trend line) compared to the goal or aim rate, and variability in the consistency of the performance.

When a teacher approaches instruction with a plan of action, it is important to remember that the plan will need to be modified. Effective instruction takes place when the instructional procedures and content match the overall teaching–learning process. Because the teaching–learning process is dynamic and flexible, the instructional process must also be dynamic and flexible.

Designing Differentiated Instruction

Once objectives have been set and students' skills have been assessed, instructional design and adaptation is next (see **IRIS resources**). Designing differentiated instruction refers to using student data to plan for effective instruction. When teachers systematically adjust instruction in response to assessment information, students' rate of learning increases (L. S. Fuchs, Fuchs, Hamlett, Phillips, & Karns, 1995).

How can teachers design instruction so that the needs of all the students in a classroom are met? Many teachers find it difficult to teach the wide range of skills their students require. Because the students' deficits are so many and so varied in level, it seems impossible to cover them all. The steps to designing instruction are as follows:

1. Use the information gathered from various assessment tools. Curriculum-based measurements are particularly suited for this purpose because they are ongoing and closely aligned with *curricular goals* (University of Texas Center for Reading and Language Arts, 2000a, 2000b).
2. Group students with similar instructional needs.
3. Set specific instructional targets that focus on particular concepts, using curricular objectives and annual goals as a guideline.
4. Prepare a schedule, and choose and sequence appropriate activities and tasks.
5. Set up a group management system that is specifically designed to provide instruction in a variety of grouping patterns.
6. Identify students who need additional, more intensive instruction.

Determining Goals of Instruction Setting goals for instruction helps teachers know where they are going. Several questions teachers may ask in setting goals for instruction and learning are as follows:

- Have I used the information I have about the characteristics of the learner?
- Have I taken into account my beliefs and attitudes?

- Have I involved the students in setting the goals?
- Have I set goals that are realistic yet challenging to both the learner and me?
- How do these goals fit within the larger teaching–learning context (e.g., goals of the school, curriculum, long-range career goals of the student)?

When Ms. Kranowski (the special education teacher described earlier with 11 students in fourth through sixth grade who have learning and behavior problems) set her instructional goals for writing, she decided that she had two major objectives: to have the students experience successful writing in a variety of forms and to have the students develop writing skills that would help them in school and later in life. She wanted very much to involve the students in setting goals, believing that the students would then have a greater commitment to reaching those goals. She began the year by telling the students about “the way that writing works” in the classroom. She shared the importance of supporting each other, for she wanted students to set a goal of working together. As they worked together, shared their writing, and got to know each other better, Ms. Kranowski sat down with each one of the students and helped them select skills for improvement. By analyzing the students' written products, observing the students as they wrote, talking with the students about their writing, and using her knowledge about the scope and sequence of writing skills, she felt comfortable working with students in selecting goals. In this way, Ms. Kranowski's instructional goals were interwoven with her students' learning goals.

Flexible Grouping Deciding what type of grouping pattern to use is also part of designing instruction. Because of the large range of abilities, interests, and background knowledge in most classrooms, it is best to use flexible grouping. Flexible grouping, another component of effective instruction, refers to the use of a variety of grouping practices that change depending on the goals and objectives for the lesson. Mixed-ability groups, same-ability groups, whole groups, pairs, and individualized instruction can be used to meet different student and instructional needs. Groups should be flexible, and students should be regrouped on a regular basis.

Adaptations The purpose of making instructional adaptations is to ensure that students can participate in instruction, activities, homework, and assessment to the extent possible in the general education classroom. The use of adaptations enhances learning for all students, not only those with learning and behavior problems. Adaptations can be divided into three categories:

1. Instructional design (e.g., accessing resources, collaborating with other professionals, having a plan for adaptations, and integrating technology).

2. Instructional and curricular (e.g., making learning visible and explicit; using clear, simple language; breaking a task or activity into steps; and providing multiple ways of demonstrating learning).
3. Behavioral support (e.g., teaching alternative behaviors, being consistent, providing structure, and being proactive).

Using adaptations provides for differentiated instruction, which maximizes learning for all students. When determining whether adaptations are necessary, consider the demands of the lesson and the skills of the learner. If a mismatch exists between the abilities required by the lesson and the student's skills, adaptations may be necessary. The adaptations that are used should create a better match between the student's skills and the task. For example, if a lesson on main ideas will require students to write the main idea of a story but a student with a reading disability has difficulty writing letters or words quickly, a mismatch may occur between the demands of the lesson and the student's abilities. If the instruction on main ideas is at the correct level for the student, adaptations to the lesson can allow the student to benefit more from the instruction. One adaptation may be to give the student extra time to write the main idea sentence. A second possible adaptation may be to have the student work with a partner to develop a main idea sentence. In this case, the student with the reading disability can be fully involved in creating the main idea sentence, but the partner can write the sentence.

Scaffolding An essential element of effective instruction is the use of scaffolding (Alfieri et al., 2011). *Scaffolding* means adjusting and extending instruction so that students are challenged and able to develop new skills. The teacher provides supports that give students opportunities to meet objectives and to explain their learning. The teacher can scaffold instruction to meet students' needs

by manipulating the task, materials, group size, pace, presentation, and so on. The metaphor of a scaffold captures the idea of an adjustable and temporary support that can be removed when it is no longer needed. Vygotsky (1978) describes learning as occurring in the *zone of proximal development*: "the distance between the actual developmental level as described by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). Important to promoting development within the students' zones of proximal development is the teacher's ability to relinquish control of the strategies to the students. To scaffold instruction effectively, teachers must teach new content in manageable steps; use explicit, systematic instruction for each step; and provide practice and review until students are independent and confident (see Apply the Concept 1.4).

Teaching in manageable steps involves breaking complex tasks into smaller steps to allow students to master each step of the task. Each step should be slightly more difficult than the previous one and should lead up to the full, complex skill the students are to learn. Providing specific instruction for each step of a complex task not only allows student success, but also creates a clear picture of what subskills students have mastered and what still needs further instruction or practice.

In addition to teaching in small segments, each step must be taught by using explicit, systematic instruction. *Explicit instruction* includes modeling, guided and independent practice, and use of consistent instructional procedures. *Systematic instruction* refers to sequencing instruction from easier to more difficult and teaching the easier skills to mastery before introducing more complex skills. Many reading strategies require complex thought processes and quick decision making. Students with reading difficulties or disabilities often do not automatically infer the thought processes that good readers use. Therefore, strategies for reading words

1.4 Apply the Concept

Scaffolding Instruction

Use the following guidelines to scaffold instruction for students with learning and behavior problems:

- Break the task into small steps.
- Teach easier skills first, then more difficult skills.
- Slow the pace of new skill introduction to allow for more practice of a task.
- Use a small group size.
- Make thought processes for accomplishing tasks overt by talking to students about what you are thinking when you engage in the task. Have students share what they are thinking when they practice the task.
- Teach strategies for completing complex skills.
- Model all steps involved in completing tasks.
- Provide teacher assistance during the first student attempts at skills.
- Praise the accomplishment of each small step.
- Use concrete materials during initial skill instruction.
- Vary the materials used.

and comprehending text must be taught in an overt way. Modeling strategies and guiding students through new tasks assist them in acquiring new skills without frustration. As they master each step, students become more independent in their ability to perform the skill or strategy.

Scaffolding reading instruction is analogous to the process many parents use when teaching their child to ride a bike. Although most children have seen many models of other adults and children riding bikes, a model of the whole bike-riding process by itself is probably not enough for a child to understand all the tasks that go into riding a bike successfully. Consequently, many parents divide riding a bike into smaller steps and teach each step explicitly, while allowing the child sufficient opportunities to practice and master each step. For example, as a first step, a parent may model and provide guided practice for sitting on the bike. The parent may provide explicit instruction by telling the child where to place feet and hands and how to work the pedals for moving forward and braking. Second, the materials may be scaffolded by attaching training wheels. This allows the child to practice what the parent has taught about sitting and pedal movement without having to deal with balancing the bike, too. After the child has mastered riding with training wheels, the next step may be for the parent to take the training wheels off and hold the bike while running with the child as the child rides the bike. This allows the child to begin getting a feel for the balance needed to ride the bike independently. Parents can also assist the child in the thought processes for bike riding—look straight ahead, don't lean to one side, and so on. This explicit instruction helps the child learn techniques for balancing on the bike. The next step may be to slowly remove the scaffold by holding the bike less and less tightly, and finally letting go while the child rides. The final step for the child is to balance and pedal without the parent holding on to get the bike started.

Dividing bike riding into manageable steps not only helps the child learn a new, complex skill with less frustration (or in this case less injury), but also allows faster learning because the steps of the process are made explicit and practiced to mastery. Reading instruction should be similarly broken down into manageable steps, and each step should be taught explicitly and practiced to mastery. Independent reading is the ultimate result, but independent reading requires many, many steps and thought processes. For students with reading difficulties or disabilities to succeed, all of these must be taught explicitly and effectively.

Time Management One of the most powerful tools for improving learning is *careful use of instructional time*. Ideally, students with the greatest instructional needs would receive the most time in effective instruction, but this often not the case (Phelps et al., 2012). For teachers working with students who are performing below grade level, effective time management becomes an essential part of designing

and providing effective instruction. In addition to avoiding wasting time, teachers must decide how much time to give to each activity or concept. When deciding how to sequence activities and how much time to spend on each, the teacher must think about the learner, the materials, and the task (Kame'enui & Carnine, 1998). As discussed earlier, the features of effective instruction must be balanced carefully, and their implementation must be ongoing. Assessment is a necessary step in designing instruction; similarly, instruction is an integral part of assessment and student monitoring.

Differentiating Instruction Ms. Kranowski watched and listened to the students and analyzed their written products over time. She used curriculum-based measures to gauge skills in capitalization, punctuation, spelling, and grammar. All these evaluative measures led her to the same conclusion: Her students' writing skills were not improving at a rate that she considered adequate. Ms. Kranowski decided to compile all the data using a class summary sheet. She then examined the data to find similar needs among her students. Estrella, Aileen, Luther, Jacqueline, and Sally were having difficulty capitalizing proper nouns. While the rest of the class completed a first draft of a story, Ms. Kranowski spent 10 minutes with these students, providing direct and explicit instruction on the rules of capitalization. She had prepared several examples of proper nouns, which she used to monitor her students' understanding by asking them to think aloud about why the nouns were or were not capitalized.

In determining how to modify her instruction, Ms. Kranowski thought about the ideas presented in Apply the Concept 1.5. She felt that she had adequately addressed the first four questions. Student motivation, attention, encouragement, and modeling had been good. She did not feel as comfortable about her answers to the next three questions: prior knowledge, manner of presentation, and practice. Sometimes she thought she wasn't focusing enough on one or two writing skills. She tended to present too much and not allow for enough practice and feedback. Ms. Kranowski decided that her modifications had to alleviate the problems with presentation, practice, and feedback. Her solution was the skill lessons that focused on teaching specific writing skills twice a week. For Ms. Kranowski and her students, this solution was successful. Her students began acquiring and maintaining the targeted writing skills. Now she is asking questions and planning for generalization and application.

In addition to planning and designing effective instruction for students with reading problems, teachers must consider the delivery of differentiated instruction. Several features occur during the delivery of effective instruction, including effective pacing, providing sufficient opportunities for students to respond, and feedback. Many of these same instructional practices benefit students who are

1.5 Apply the Concept

Questions for Evaluating the Instructional Process

- **Student motivation.** Am I creating a context in which learning is valued? Am I providing students appropriate choices about tasks and materials?
- **Student attention.** Am I creating an environment in which students can and are encouraged to attend to the learning task? Am I providing opportunities for students to work in settings that promote their attention?
- **Encouragement.** Am I creating a setting in which students are encouraged to take risks and be challenged by learning? Do I provide adequate feedback to each student regarding learning and social behavior?
- **Modeling.** When teaching a new task, do I first model what I want students to do? Do I use “think-alouds” to show students how I manage a task? Are the students given the opportunity to watch, listen, and talk to others so that they can see how the knowledge or skill is learned?
- **Activating prior knowledge.** Am I getting the students to think about what they already know about a skill or topic, and are they given the opportunity to build on that information in an organized fashion?
- **Rate, amount, and manner of presentation.** Are the new skills and knowledge being presented at a rate and amount that allow the students time to learn, and in a manner that gives them enough information yet does not overload them.
- **Practice.** Are the students given ample opportunity to practice? How much time do I provide students to practice and learn from each other?
- **Feedback.** Are the students given feedback on their work so they know how and what they are learning?
- **Acquisition.** Are the students given the opportunity to learn skills and knowledge until know something almost automatically?
- **Maintenance.** Are the students given the opportunity to continue to use their skills and knowledge so that they can serve as tools for further learning?
- **Generalization.** Are the students generalizing the skills and knowledge to other tasks, settings, and situations? Are the students, other teachers, or parents seeing the learning?
- **Application.** Are the students given the opportunity to apply their skills and knowledge in new and novel situations, thereby adapting their skills to meet the new learning experiences?

English language learners (ELLs) and also have learning problems (see Apply the Concept 1.6).

Quick Pacing *Quick pacing* refers to instruction and student response that move at a manageable pace for students while taking full advantage of every minute of instruction. A quick pace eliminates unnecessary teacher talk and minimizes the amount of time between activities, allowing for more instructional time. A quick pace also keeps students alert and provides lots of opportunities for students to participate. For students who are behind in their reading skills, increased instructional time is essential. To catch up to expected levels of reading, students with reading problems have to make more progress than an average reader. A quick pace also keeps students actively engaged in the lesson. This, in turn, increases their instructional time. When teachers effectively use the scaffolding techniques discussed earlier, students can succeed, and the lesson can move at a quick pace.

Sufficient Opportunities for Student Response When delivering a lesson, teacher routines should provide for

maximum opportunities for students to respond with teacher feedback. For new instruction, teachers model the expected response and then give students an opportunity to practice. For activities previously taught, students practice and review skills taught and also generalize to more difficult tasks. Therefore, lessons should be filled with opportunities for students to respond and demonstrate what they are learning. Teachers may in several ways increase the number of opportunities to respond within a lesson:

1. *Limit teacher talk.* Limiting the length of teacher talk can be accomplished by breaking up teacher modeling or explanations of concepts with questions for the students. Students can replicate teacher models or respond to related questions as each step of a process or strategy is taught.
2. *Use choral and individual responding.* Choral responding permits all students participating in the lesson to answer at the same time. Its use, followed by individual responses of students, increases the number of opportunities a particular student has to practice skills within a lesson.

1.6 Apply the Concept

Designing Instruction for English Language Learners with Learning Disabilities

Students with learning disabilities who are English language learners (ELLs) benefit from many of the same instructional practices associated with improved outcomes for monolingual students, when teachers consider the language demands of the activities. Effective teachers adjust their instruction to consider the language and concept demands of their instruction. These teachers realize that ELL students' understanding of new concepts may be enhanced through instruction that uses routines, embeds redundancy of language use in lessons, and provides explicit discussion of vocabulary and the structure of language required to complete the task. Furthermore, teachers who are effective with ELL students present lessons that are organized to teach students to be aware of what they are learning and where they are confused. Haager and colleagues (2003, 2004) conducted an observational study in 14 classrooms that included students who were ELLs, representing more than 10 different language groups. They identified effective teachers based on students' academic outcomes. They then looked at the instructional practices of these teachers and found that effective teachers of ELLs

- Use explicit teaching.
- Monitor student progress.

- Provide opportunities to practice new learning.
- Incorporate strategies that support student acquisition of English language skills.

Which instructional practices should you use in your teaching to ensure that English language learners have opportunities to learn? Providing clear, specific, and easy-to-follow procedures helps students learn new skills and strategies. It is also important to provide opportunities for students to acquire the language associated with these new skills and strategies. Teaching explicitly assists students; this includes identifying and using the structural and visual cues present in words, making relationships among concepts, words, or ideas visible and connected.

In summary, provide the following supports (Baker et al., 2014):

- Encourage the strategic use of first language, including applying what they know about first language to English, using their first language around school, incorporating first language throughout the school day.
- Build vocabulary with the first language as a foundation, including teaching academic vocabulary such as those words that help you know more about the content area you are studying (e.g., feud, democracy, mitosis).
- Focus on meaning across content area learning and through listening, reading, and writing.

3. *Use a variety of grouping formats.* Teaching students in small groups or using structuring lessons for pairs of students gives each student more turns to practice new skills. Students who have reading difficulties or disabilities often need extensive practice to learn new concepts. Providing additional practice opportunities within the lesson is an effective way to increase student skill levels.

Feedback *Feedback* refers to the teacher assistance that is provided when students respond during a lesson, while reading a passage, or working independently. Students with academic difficulties or disabilities need teachers to assist them with errors immediately and to provide additional opportunities to practice the skill correctly after assistance.

When students read or answer questions incorrectly without immediate error feedback, they practice the skill incorrectly. The effects of inaccurate practice can add up quickly, allowing the student to learn the skill incorrectly. This means that the student will have to spend a significant amount of time relearning the skill in the future. Also, students who respond correctly benefit from positive and specific feedback about the aspects of the task they performed well. Examples of feedback include: "You added the numbers correctly in all of the problems in the first line; however, there are two errors in problem #3. Can you find them?"; "I like the way you read this paragraph with expression. Read the next paragraph the same way, but I would like you to pause at the end of each sentence. Let me read one sentence for you to show you what I mean."

MyLab Education [Self-Check 1.1](#)

MyLab Education [Self-Check 1.2](#)

MyLab Education [Self-Check 1.3](#)

MyLab Education [Self-Check 1.4](#)

MyLab Education [Self-Check 1.5](#)

MyLab Education [Application Exercise 1.1](#): Characteristics of Students with Learning Disabilities

MyLab Education [Application Exercise 1.2](#): Contributing to a Student's IEP

MyLab Education [Application Exercise 1.3](#): Features of Effective Instruction: Assessing Progress



Summary

- Students with learning and behavior problems exhibit one or more of the following: consistent poor academic performance, attention problems, hyperactivity, memory problems, poor language, and behavior problems. The problems are characterized as persistent, severe, and requiring specialized instruction and/or behavioral supports.
- Typically, students are identified as having learning disabilities through their classroom teachers and through the application of numerous assessments. However, concern has been voiced over the accuracy and fairness of IQ. Some refer to these tests as the “wait to fail” model because of a discrepancy between expectations and low achievement of some students—especially minorities. Response to intervention (RTI), also referred to as multi-tiered system of supports (MTSS), addresses concerns about IQ achievement issues because it involves providing help to students as soon as they need it. RTI typically involves a multi-tiered system of interventions, a data collection system that informs decision making, and ongoing progress monitoring.
- The individualized education program (IEP) is both a process and a document. The process involves a group

of individuals who establish an appropriate specialized educational program. At the IEP meeting, the team determines and documents whether a student is eligible for special education services; which services will be provided, the amount of services, and where they will occur; the goals and objectives; adaptations needed; and additional considerations as necessary, such as accommodations to statewide assessments. Data from the screening, progress monitoring, and interventions can be used to determine whether students have a learning disability or a severe behavior problem.

- Both the teacher and the student bring into the classroom knowledge and skills, as well as beliefs about school and about the world. Therefore, learning involves the accumulation of knowledge and skills, but it is also the active construction and transformation of ideas based on observations and experiences. Research has been conducted that supports the use of the following instructional features to meet the needs of students with learning and behavior problems: assessing progress, designing differentiated instruction, delivering instruction, and error feedback.

Chapter 2

Approaches to Learning and Teaching



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Learning Outcomes

- 2.1** Explain applied behavioral analysis and how teachers can use it in classrooms to increase desirable behaviors and decrease undesirable behaviors.
- 2.2** Provide an overview of how teachers can use cognitive strategy instruction (CSI) to teach academic, cognitive, or social skills.
- 2.3** Describe social learning practices and executive functioning; then list several practices that might influence both executive processing and academic outcomes.

Meaghan knew by the time she was a senior in college that she wanted to be a special education teacher, but was close to finishing her psychology degree and did not want to change majors. Instead, Meaghan completed her undergraduate degree in psychology and then returned to school part-time to pursue a degree with certification in special education. While going to school part-time, she was also working as a teaching

assistant in a middle school. Fortunately, much of what she learned in psychology was directly applicable to the work she was doing with a team of special education teachers. She had learned a great deal about various learning theories as a psychology major and, in particular, how to use applied behavior analysis. Now, much of what she was asked to implement as schoolwide behavior support was based on the applied behavior analysis she had learned as an

undergraduate. She understood the importance of looking for positive behaviors and providing reinforcement to students when they exhibited them. She also understood how to be consistent in her application of rules. Furthermore, her coursework that addressed cognitive behavioral theories also assisted her in effectively implementing many of the cognitively based math and reading strategies that she was encouraged to use by the special education teachers. All in all, the longer she worked as a special education teaching assistant, the more she appreciated her strong background in learning theory.

This chapter highlights some of the critical features of learning as they relate to delivering effective instruction and providing classroom management. We link specific models such as applied behavior analysis to practices in the

classroom to facilitate understanding and designing effective behavioral and academic learning practices. These practices guide teachers in modifying their teaching to promote effective and efficient learning. The chapter is sequenced to move from less to more cognitively oriented models. Many of the general principles presented in this chapter will be applied to specific content areas in subsequent chapters. As you read this chapter, we encourage you to think about students you know who are not succeeding in school and who have learning and behavior problems. How are their learning patterns and habits explained by the various approaches to learning described in this chapter? What general teaching principles do the different approaches suggest to help such students? How can technology assist in the teaching-learning process?

Applied Behavior Analysis

What is applied behavioral analysis (ABA), and how can teachers use it to improve the academic and social behavior of their students? Teachers and other professionals who use applied behavior analysis understand that many behaviors of their students are learned and therefore these students can be taught new behaviors. With applied behavior analysis, the focus is on identifying observable behaviors and manipulating the antecedents and consequences of these behaviors to change behavior. Applied behavior analysis is a highly scientific approach to designing instruction and evaluating its effects.

Manipulating Antecedents

An *antecedent* is an environmental event or stimulus that precedes a behavior and influences the probability that the behavior will recur in the future. For example, students learn that when the teacher pulls the cart with the video machine on it to the front of the room, that behavior serves as an antecedent to watching a film. Teachers learn that a change in their classroom structure might be an antecedent for students' exhibiting higher levels of classroom behavior problems. Antecedents influence desirable and undesirable behaviors. It is relatively easy for teachers to manipulate antecedents to change student behaviors. Teachers can do this by analyzing the environment and identifying factors that contribute to desirable and undesirable behaviors. By identifying and changing these factors, teachers can increase student learning and minimize or eliminate antecedents that interfere with successful learning. In observing antecedent behaviors, the teacher usually considers instructional content, classroom schedule, classroom rules, classroom arrangement, and peer interactions. Teachers can also teach students "cues" that serve as antecedents for expected behaviors. For example,

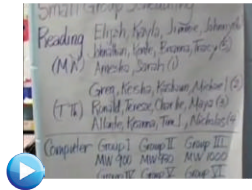
the teacher can point to the clock as a cue that students have limited time to complete an activity or can clap her hands as a signal that she expects students to move to new groups.

Instructional Content Teachers can consider a number of ways to manipulate instructional content to control behavior: make activities more interesting, incorporate student preferences, reduce task difficulties or length, provide choices, and develop functional or age-appropriate activities. By modifying educational programs, teachers can prevent students' inappropriate or undesirable behavior and establish a pleasant classroom environment. For example, Blair (1996) found that incorporating the students' activity preferences into circle time and academic activities in a preschool/kindergarten essentially eliminated the undesirable behavior of young students who had significant behavior problems. Another example is the teacher who realized that students would begin fooling around when waiting in line to transition to recess or lunch. She decided to give students a question related to their work that they would have to solve with a partner while waiting in line.

Classroom Schedule A well-designed schedule allows everyone to predict what will occur during the school day and assist with the allocation of instructional time. Teachers can involve students in planning the daily schedule. In addition, it is important to avoid revising a schedule because changes can be disruptive, undermining students' ability to predict what will happen during the day. If changes are made to the schedule, posting them in a visible place is useful. Some students with special needs will require an individual schedule as well as the one provided to the class as a whole. They may be required to attend support services such as speech and language supports or occupational therapy. A written card for each student with a list of these activities each day can be very useful.

MyLab Education Video Example 2.1

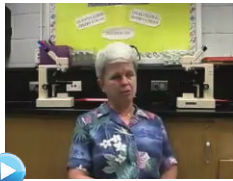
In this video, a sixth-grade teacher offers suggestions for establishing a consistent classroom schedule that meets diverse student needs.



Classroom Rules When properly developed and stated, carefully selected rules can contribute to a positive classroom atmosphere. They help students understand what will and will not be accepted in the classroom. It is important to select a limited number of rules to make it easier for students to remember them. Seek the class's input on the rules to increase students' commitment to following them. State rules positively to help students identify the acceptable behavior, and post the rules so students can refer to them.

MyLab Education Video Example 2.2

In this video, a veteran teacher explains how her school developed a schoolwide system of rules that apply in classrooms and other areas of the school. Why is such a systematic approach especially important for students with behavior problems?



Classroom Arrangement

Noises and crowding in a classroom sometimes increase undesirable behaviors. Arranging the furniture in the classroom to partition some areas can reduce noise levels, and limiting the number of students in any area can reduce crowding. It is also useful to know what spaces in the room are individual and which ones are for group interaction as well as resources that are available to all students (e.g., computer center) and ones that are restricted.

See Chapter 4 for additional information on classroom arrangement and sample room arrangements.

Peer Interactions The classroom and the school are important social communities, and peer interactions play a significant role in determining the levels of desirable and undesirable behaviors. Teachers can facilitate peer interaction by pairing students who have good social skills with students who have more difficulty in prosocial skills, encouraging interaction between students with and without disabilities, and teaching prosocial skills to decrease inappropriate behaviors and to increase appropriate behaviors.

For more information on teaching prosocial skills, refer to Chapter 4.

Increasing Desirable Behaviors Through Consequences

During the past few weeks, Ms. Glenn has focused on teaching Marjorie, Sheila, and Ali subtraction with regrouping. During this time, she demonstrated many of the principles by using 10 packs of sticks. Today, the students apply the principles on the chalkboard. Ms. Glenn then asks the students to practice the skills independently by completing a math sheet with 12 subtraction-with-regrouping problems. She watches them complete the first problem correctly. Now she needs to teach another group, yet she wants to be sure that these three students will continue to work on their math.

Progress Monitoring According to principles of applied behavior analysis, behavior is influenced by the consequences that follow it. Ms. Glenn needs to decide what consequences will follow appropriate math performance to maintain or increase its occurrence. She tells Marjorie, Sheila, and Ali, "If you get nine or more problems correct on this math sheet, I will let you have 5 minutes of free time in the Fun Corner." Free time in the Fun Corner is a big reinforcement for all three students, and they accurately complete the math sheet while she works with other students.

Teachers can apply four principles in attempting to maintain or increase behavior:

1. The behavior must already be in the student's repertoire. In the preceding example, Ms. Glenn's students knew how to perform the math task. To maintain or increase social or academic behaviors, the teacher must first be sure that the student knows how to perform the target behaviors.
2. A consequence must follow the precise behavior to be changed or must be linked to the behavior through language. For example, the teacher may say, "Because you completed all of your math assignments this week, I'll let you select a movie to watch."
3. A reinforcer is whatever follows a behavior and maintains or increases the rate of the behavior. For example, you may use a point system to reinforce the academic or social behaviors you are hoping to maintain or increase. Ms. Feinstein was hoping to increase the time that Justin (a seventh grader identified with learning disabilities) spent completing his social studies activities and so was giving him points for working on this task that he could exchange for a night without homework.
4. To be most powerful, reinforcement should occur immediately following the behavior.

Thus, to increase the frequency or strength of a behavior, we can manipulate the consequence that follows the behavior.

Web Resources

See the following website for an overview of applied behavior analysis from the Association for Behavior Analysis International at www.abainternational.org.

Reinforcement Reinforcement is the most significant way to increase desirable academic or social behaviors. There are two types of reinforcement: positive and negative; both increase responding. How do they differ? The major difference between positive and negative reinforcement is that *positive reinforcement* is the *presentation* of a stimulus to increase responding, whereas *negative reinforcement* is the *removal* of a stimulus to increase responding.

MyLab Education

Video Example 2.3

The teacher in this video provides positive reinforcement to individuals and to groups of students who listen and respond appropriately.



Positive reinforcement increases responding by following the behavior with activities, objects, food, and social rewards that are associated with increasing the behavior. Toys, games, and privileges such as helping the teacher or having extra recess time are examples of positive reinforcers. Also, teacher attention or positive comments can be positive reinforcers.

Negative reinforcement increases responding by removing a stimulus. For example, if the teacher turned off the music in the classroom and students' work activity increased, then removing the noise of the music would have served as a negative reinforcement for the class. Ms. Jacob turned her back and walked away from Juline when she was making inappropriate noises. This was a removal of Ms. Jacob's positive attention and it increased Juline's use of appropriate rather than inappropriate noise.

The practice of negative reinforcement is often misused because the term *negative* is misinterpreted to mean harmful or bad, and therefore, the implication is that positive reinforcement is good and negative reinforcement is bad. Negative reinforcement simply means taking away something unpleasant if a specific behavior is exhibited. If a teacher scowls at a student until the student works, removing the scowl is negative reinforcement. The learning that takes place through negative reinforcement is avoidance learning. A common use in schools is the completion of work assignments to avoid staying after school. Students often use negative reinforcement with adults. An example is a child who throws a temper tantrum until he or she gets what he or she wants.

The effectiveness of a reinforcement program depends on selecting reinforcers that actually increase the target

behavior. One way teachers can make sure that they use appropriate reinforcers for each student is to develop a reinforcer preference checklist for identifying reinforcers. Activities and events that a student selected when given a wide choice are more likely to be strongly reinforcing. To prevent students from being satiated with the reinforcer, reinforcement menus are recommended. Instead of providing one reinforcer over time, giving a choice of reinforcers increases their value and prevents satiation. Remember, knowing what is reinforcing to each student is a valuable resource to teachers, as it arms them with valuable means of improving academic and social behaviors for that student. Not all students find the same things reinforcing, so there is value in having a reinforce preference list for each of your students.

Many teachers are concerned that using reinforcers can prepare students for being "bribed" or "paid" to exhibit the desired behaviors. However, many students with behavior disorders have little experience using appropriate behaviors, so reinforcers can serve as a means to motivate them to practice appropriate behaviors. In using reinforcers with your students, it is important to start with more *intrinsic reinforcers*, such as using activities that are reinforcing to the student (e.g., listening to music, coloring), and move to more *tangible reinforcers* such as tokens and food only as necessary. For example, a hierarchy of reinforcers, ranging from internal self-reinforcement ("I did a good job") to more extrinsic or tangible reinforcers such as choosing from a toy store, are presented in Apply the Concept 2.1.

How do you decide which reinforcers you should use? Selecting reinforcers is a critical decision because it influences their effectiveness. Consider the following suggestions when selecting reinforcers:

- Observe and record behaviors and events that are reinforcing to the student. For example, some students like to have their hands or face touched with a feather, other students like verbal praise, and some students like to have time with their friends.
- Consider the age and interests of the person whose behavior you want to improve, and consider what is reinforcing to that person.
- After you consider what you know about the person—the age, interests, and likes and dislikes—identify a list of potential reinforcers.
- Use the behaviors the person likes to engage in as reinforcers for the behaviors liked less.
- Interview the person about what is liked and would be reinforcing to that person.
- Try something new as a reinforcer.
- Consider using reinforcers that occur naturally in the environment.
- Be sure to keep a record of the target behavior and the extent to which it is influenced by the reinforcers.

2.1 Apply the Concept

Classroom Reinforcers: Intrinsic (Internal) to Extrinsic (Concrete, Tangible)

Reinforcer	Examples
Self-managed reinforcers	Checks for raising hand, stars for not fighting at lunch, charting behavior
Positive recognition by student	I did a good job; I'm working hard; I'm listening to the teacher.
Positive contact from teacher or students	Standing near student, patting student's desk, providing opportunities for student's friends to sit near student
Positive feedback from teacher	"You are working hard." "You are focusing on the lesson." "I really like the way you cooperated."
Post names of students with improved behavior	Provide a place in the classroom or school where the names of students displaying improved behavior are posted.
Privileges related to the target behavior	Student who is reducing fighting at recess is given more recess time for not fighting. Student who is focusing on completing work is given less homework for completing work.
Privileges not related to the target behavior	Running errands for the teacher, free time, opportunities to socialize with friends
Tangible rewards, including food, tokens, materials	Raisins, crackers, school materials such as pencils or paper, tokens to exchange for toys or other items of value

Secondary Reinforcers A *secondary reinforcer* is a previously neutral behavior that is paired with a reinforcer and therefore takes on reinforcing properties of its own. Thus, if the teacher always calls a student up to the teacher's desk before rewarding the student, then being called to the teacher's desk becomes a secondary reinforcer.

Sincere praise and attention are the most frequently used secondary reinforcers. Teachers are often quite skillful at using such subtle but effective secondary reinforcers as a hand on the shoulder, a pat on the head, a smile, or a wink. Many teachers position themselves carefully in the room to be near students whose behavior they want to reinforce with their attention. Apply the Concept 2.2 provides options

for letting students know you value their good work and behavior.

Recall earlier when we talked about reinforcers, we discussed that ideally teachers use the least intrusive, or intrinsic, reinforcers (e.g., teaching students to recognize their achievements). However, times often occur when special education teachers need to use more extrinsic reinforcers (e.g., toys, privileges). Sometimes teachers manage these externalizing reinforcers by initiating a token reinforcement system. A *token system* is one in which the teacher gives coupons, chips, points, or stars to students if they exhibit target behaviors. For example, the teacher may give tokens to students for listening and not disrupting

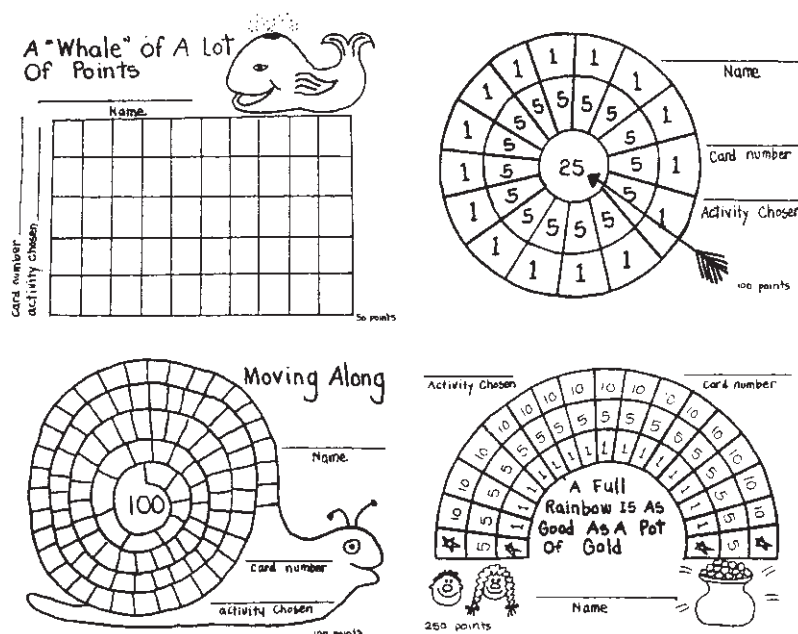
2.2 Apply the Concept

35 Ways to Say "Very Good"

- Exactly right.
- Keep working on it—you're getting better.
- You outdid yourself today.
- Great!
- You figured that out fast!
- Good work!
- You really make my job fun.
- Fantastic!
- I knew you could do it!
- You are doing much better today.
- Way to go!
- Perfect!
- That's the way to do it!
- You are good.
- Congratulations!
- You got that down pat.
- Wow!
- That's right!
- That's much better.
- Wonderful!
- That's quite an improvement!
- That's great!
- One more time and you will have it.
- Tremendous!
- You did it that time.
- You've got your brain in gear today.
- Nothing can stop you now.
- Terrific!
- Now you have it!
- You make it look easy.
- Sensational!
- Good for you!
- You are learning fast.
- I hope you can tell how much you are learning.
- Share your good work with your family when you go home today.

Figure 2.1 Forms for Recording Points Earned in a Token Economy

SOURCE: P. Kaplan, J. Kohfeldt, and K. Sturla, *It's Positively Fun: Techniques for Managing the Learning Environment* (Love, 1975), pp. 15–16. Reproduced by permission of Love Publishing Company.



others, for doing homework, for completing work on time, and for working well with others. Tokens are symbols in that they usually have little inherent value but can be exchanged for valuable things or privileges. Token systems can be simple, such as receiving stars for completing writing assignments, with each star worth 3 minutes of extra recess. Figure 2.1 presents several cards that teachers can use with younger students to record points. Token economies can also be quite complicated, as in a level system with rewards and privileges that vary according to the level of behavioral control the student exhibits. Students are assigned to levels contingent on their behavior. Being raised or lowered to a different level occurs as students accumulate points. Points are awarded and deducted for a full range of behaviors. More complicated token systems are typically used to manage aggressive behaviors displayed by severely disturbed students.

Shaping If reinforcement increases the rate of behavior, what does a teacher do if a target behavior is occurring at a very low rate or not at all?

For example, Mr. Kladder's goal is to shape Rhonda's behavior so that she is performing multiplication facts quickly and automatically. During the initial teaching phase, Mr. Kladder rewards Rhonda for computing 3×5 by adding five 3s. After Rhonda demonstrates that she can perform this behavior with a high degree of accuracy, Mr. Kladder no longer reinforces her for adding the numbers but reinforces her only for skip-counting 5, 10, 15, and then writing the answer. After Rhonda is successfully able to skip-count,

she is reinforced for computing the answer in her head and writing it down. Now Mr. Kladder begins to give Rhonda timed tests in which she is reinforced only for beating her best time. Mr. Kladder is *shaping* Rhonda's behavior by reinforcing responses that more and more closely approximate the target response.

The Premack Principle If one activity occurs more frequently than another, the more frequently occurring activity can be used as a reinforcer to increase the rate of the less frequently occurring activity (Premack, 1959). For example, Adam more frequently participates in outdoor play than in writing stories. His teacher can make outdoor play contingent on completing writing assignments. Using the Premack principle has several advantages for teachers, including ease of use and relying on events that are already occurring in the classroom. For example, a teacher might determine that a student with learning problems really likes reading, sort of likes math, and really does not like spelling. The teacher could then use reading as contingent on completing spelling. A more appropriate list for most students with learning and behavior problems might include 5 minutes of free time contingent on completing spelling. Reinforcing activities such as talking quietly with friends or listening to music can be used to increase the rate of less desirable activities such as completing a book report.

Group Contingencies Group contingencies can be used to increase desirable behavior or decrease undesirable behavior. When *group contingencies* are used, a group of students

is either reinforced or loses reinforcement, contingent on the behavior of the entire group or of a target student in the group. For example, a teacher could establish a 20-minute block of free time at the end of the school day. Every time the noise level in the classroom exceeds the teacher's limits, she subtracts 1 minute from the allocated free time. Group contingencies can also be used to change the behavior of a particular student in the class. For instance, Carla is a 12-year-old student with behavior problems who has been mainstreamed into a sixth-grade class. During Carla's first couple of weeks in the class, she continually got into fights with her classmates during recess. The teacher told the class that she would extend their recess by 10 minutes if Carla did not get into any fights during recess. The class included Carla in their group play, and fighting was eliminated. However, group contingencies being dependent on the behavior of an individual does have its dangers. The individual could use his or her position to manipulate the behavior of others in the class. It is also possible that the individual will view himself or herself negatively because of this position.

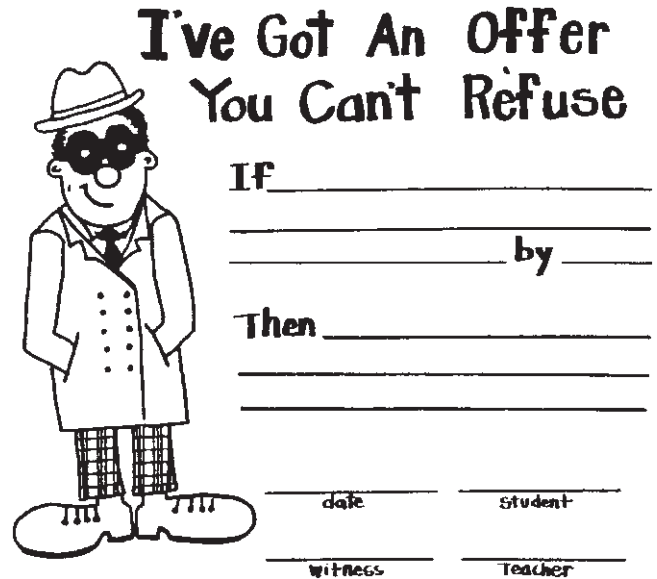
Axelrod (1998) defines group contingencies by identifying a 10-step program for their use:

1. Select only one behavior to change.
2. Carefully specify in a written format the behavior that you want to change.
3. Determine through careful observation how often and when the behavior occurs.
4. Think about what might be reinforcing to all members of the group.
5. Decide what the group contingency will be that will cause the reinforcer to be used.
6. Be sure to identify a behavior that everyone in the group can perform.
7. Provide the reinforcer contingent on a reasonable improvement in the target behavior.
8. Let each member of the group as well as the group as a whole know when they are behaving appropriately.
9. Monitor the progress of the group and each member of the group.
10. Revise the program as needed.

Contingency Contracting *Contingency contracting* is an agreement between two or more persons that specifies their behaviors and consequences. A common example of a contingency contract is the agreement between parent and child regarding an allowance. The child agrees to perform certain behaviors in return for a specified amount of money each week. The contingency contract should specify who is to do what, when, under what conditions, and for what consequences (see Figure 2.2).

Figure 2.2 Sample Contingency Contract Form

SOURCE: P. Kaplan, J. Kohfeldt, and K. Sturla, *It's Positively Fun: Techniques for Managing the Learning Environment* (Love, 1975), p. 21. Reproduced by permission of Love Publishing Company.



**I've Got An Offer
You Can't Refuse**

IF _____

 _____ **by** _____

Then _____

_____ **date** _____ **Student** _____
 _____ **witness** _____ **Teacher** _____

Decreasing Undesirable Behaviors Through Consequences

Unfortunately, some students manifest behaviors that interfere with their learning or the learning of others. Techniques for decreasing these undesirable behaviors include extinction, differential reinforcement, response cost, punishment, and time-out.

Extinction *Extinction* is the removal of reinforcement following a behavior. For example, a teacher wants to extinguish a student's shouting out answers in class. She determines that telling the student to raise his hand is reinforcing the shouting behavior. She knows this because the shouting out continues, and she recognizes that the student finds her attention (commenting on his shouting out) is reinforcing to him. To extinguish shouting out, the teacher removes the reinforcer (saying "Raise your hand" to the student) and ignores the student's shouting out. It is challenging for the teacher to ignore the inappropriate behavior, especially since the student shouts out more for several days before the shouting out declines considerably.

Extinction can be an effective means of decreasing undesirable behaviors, but it is often slow and can be impractical for many behaviors that occur within the classroom because the reinforcers for the undesirable behavior are often difficult for the teacher to control. For example, the student who continually shouted out in class was being reinforced not only by the classroom teacher's attention ("Raise your hand"), but also by other students who attended to him when he shouted out. A teacher who wants to reduce this behavior through extinction has to eliminate

both the teacher's reinforcement and the reinforcement of others in the class. To compound the difficulty, slip-ups by a teacher or students intermittently reinforces the behavior and maintains it for a long time.

Another characteristic of extinction is its effect on the rate at which the target behavior continues to occur. During extinction, the target behavior will increase in rate or intensity before decreasing. Thus, a teacher who is attempting to eliminate tantrums through extinction will observe the tantrums occurring more frequently at first, lasting longer, and perhaps even being louder and more intense than before extinction. If the teacher continues to withhold reinforcement, usually attention, the rate and intensity will decrease, and tantrums can be eliminated. For this reason, it is extremely important to chart behavior when using extinction. To document behavior change, take *baseline data*, a record of the frequency and/or duration of the behavior before implementing the intervention, and continue to record data after intervention is implemented.

Although extinction can be an effective way to decrease undesirable behaviors, it requires patience and the ability to control all of the reinforcers. Ignoring, the most frequently applied form of extinction in the classroom, is an important skill for teachers to learn. Four points to remember about using ignoring as a means of decreasing undesirable behavior are the following:

1. Ignoring can be effective when the behavior is being reinforced by teachers or students who are willing to discontinue reinforcement.
2. If a teacher attempts to eliminate a behavior through ignoring, the behavior must be ignored *every* time it occurs.
3. Ignoring will not be effective if the behavior is being maintained by other reinforcers, such as the attention of selected classmates.
4. Remember that it is important to both ignore the undesirable behavior and reinforce the desired behavior that is incompatible with the undesired one. In the example of a student "shouting out," the incompatible behavior is hand raising. The teacher would both want to ignore the "shouting out" and reinforce the student when raising his hand.

Differential Reinforcement *Differential reinforcement* involves strengthening one set of responses in contrast to another. It is an effective procedure for developing a positive behavior management plan. The main advantage of differential reinforcement is that positive consequences are used to reduce the strength of undesirable behavior. Therefore, negative side effects associated with punishment procedures are avoided. Differential reinforcement can take several forms.

Differential Reinforcement of Incompatible Behaviors and Alternative Behaviors

Differential reinforcement of incompatible behaviors (DRI) involves identifying desirable behaviors. Reinforcement is then provided contingent on the occurrence of the targeted desirable behaviors. For example, while ignoring the out-of-seat behavior of a student, the teacher targets and reinforces the desirable behavior that is incompatible with it—in this case, in-seat behavior. Therefore, when Scott is sitting in his seat, the teacher is quick to catch his appropriate behavior and reinforce it. In addition, the teacher would intermittently reinforce Scott for being in his seat. In the case of DRI, the new response (incompatible behavior) is selected because it represents an incompatible alternative to the disruptive behavior; the two behaviors cannot occur simultaneously. In differential reinforcement of alternative behaviors (DRA), the alternative behavior is not necessarily incompatible with the disruptive response, and it can occur at the same time as the undesirable behavior. The goal of using DRA is to strengthen a range of appropriate behaviors that teachers will attend to naturally, thereby reinforcing a broad repertoire of appropriate behavior. Careful planning should ensure that the reinforcers selected are sufficiently attractive and delivered with sufficient frequency to motivate student performance while removing reinforcers from the undesirable behavior. Both DRI and DRA ensure that new behaviors are fostered at the same time that undesirable behaviors are being diminished.

Differential Reinforcement of Other Behaviors

Differential reinforcement of other behaviors (DRO) is the reinforcement of the nonoccurrence of target behavior during a specified time period; reinforcers are delivered following time intervals when the target behavior does not occur. For example, a teacher may allow a student free time at the end of each 30-minute scheduled period when no target behavior occurred. Therefore, determining the length of the reinforcement period before using DRO is important. Brief intervals of 1 to 10 minutes may be selected for high-rate behaviors, and intervals up to a day in length may be used for low-rate behaviors. DRO may be most effective when used in combination with a DRA procedure by reinforcing occurrences of alternative behavior as well as providing reinforcement for intervals when a zero rate of the target behavior occurred. When combined with other methods, DRO can be a powerful procedure.

Regardless of the type of differential reinforcement, reinforcing behavior through consequences requires the teacher to do the following:

1. Identify the behavior that is to change (interfering behavior).
2. Identify the desirable behavior that is incompatible with the interfering behavior.
3. Stop reinforcing the interfering behavior.
4. Reinforce the desirable behavior.

Response Cost *Response cost* is a procedure in which a specified amount of a reinforcer is removed after each occurrence of the target behavior. Withdrawal of favored activities and tangible reinforcers is a common response strategy for young children. For example, a student is not allowed to play during free-choice session because of her aggression toward peers. One of the most common response-cost strategies for older students is the withdrawal of tokens following a target behavior. For example, say that students earn 20 points for completing each assignment throughout the day. Points can be exchanged for primary reinforcers at the end of the day. Engaging in a target behavior may result in a response cost of 30 points. Response cost is an aversive procedure that should be used carefully because it can inadvertently be used to punish positive behaviors. For example, teachers may be tempted to ask students to complete additional work if assignments are completed before the end of the class period, but additional work requirements may act as a response cost for early assignment completion.

Punishment *Punishment*, the opposite of reinforcement, is following a behavior with a consequence that decreases the strength of the behavior or reduces the likelihood that the behavior will continue to occur. Unfortunately, punishment does not ensure that desired behavior will occur. For example, a student who is punished for talking in class might stop talking but may not attend to his studies for the remainder of the day. Punishment is less effective in the long run than positive reinforcement, and thus punishment should be avoided if possible (Wheeler & Richey, 2014).

Many significant arguments can be made against the use of punishment:

- Punishment is ineffective in the long run.
- Punishment often causes undesirable emotional side effects, such as fear, aggression, and resentment.
- Punishment provides little information about what to do, teaching the individual only what not to do.
- The person who administers the punishment is often associated with it and also becomes aversive.
- Punishment frequently does not generalize across settings; thus it needs to be readministered.
- Fear of punishment often leads to escape behavior.

If there are so many arguments against using punishment, why is it so often chosen as a means for changing behavior? Many explanations can be offered, including lack of familiarity with the consequences of punishment and the inability to effectively use a more positive approach. Also, punishment is often reinforcing to the punisher, reducing the occurrence of the undesirable behavior, therefore reinforcing its use.

The use of punishment is not suggested, and instead teachers are encouraged to identify ways of positively reinforcing appropriate behaviors.

Time-Out *Time-out* involves removing a student from the opportunity to receive any reinforcement. For example, to impose a time-out, the teacher asks a student to sit in the hall during the remainder of a lesson, or asks a young child to leave a group, or asks a student to sit in a quiet chair until she is ready to join the group.

Unfortunately, time-out is frequently used inappropriately. The underlying principle behind the successful use of time-out is that the environment the student is leaving must be reinforcing and the time-out environment must be without reinforcement. This is not as easy to achieve as one might think. For example, when Elizabeth was talking and interfering with others during a science lesson, her teacher thought she would decrease Elizabeth's behavior by sending her to time-out, which was a workstation in the back of the room, away from the group. The teacher became discouraged when Elizabeth's inappropriate behavior during science class increased in subsequent lessons rather than decreased. A likely explanation is that Elizabeth did not enjoy science class and found sitting in the back of the room, looking at books, reinforcing. The efficacy of time-out is strongly influenced by environmental factors. If the environment the student is leaving is unrewarding, then time-out is not an effective means of changing the student's behavior. Time-outs should be used judiciously and with the following considerations: (1) find a place such as a "think chair" and introduce the student to the place at a time when the inappropriate behavior is not being practiced; (2) specify the amount of time spent in time-out, keeping it relatively brief (e.g., several minutes); (3) be sure to set the timer and ask the student to leave time-out as soon as the time is up; and (4) stay cool and welcome the student back to the group.

Teachers who use secluded time-out areas or contingent restraint (holding the student down plus withdrawal, exclusion, and seclusion) should be aware of the legal implications of such intervention and should obtain the necessary authorization from school administrators and from parents or guardians. Contingent restraint is considered a last option procedure and is typically used to decrease self-injurious behavior or aggressive behavior in individuals with autism or cognitive disabilities (Hersen et al., 2005).

A position paper on the use of behavior reduction strategies has been issued by the Council for Children with Behavior Disorders (CCBD, 2002). Recommended procedures for successfully implementing time-out are listed in Apply the Concept 2.3.

Stages of Learning

One way to apply the principles of learning is through considering the stages of learning. The *stages of learning* (see Figure 2.3) are the levels a student moves through in acquiring proficiency in learning (Bryant, Bryant, & Smith, 2015). For example, the first stage of learning, *entry*, is the level of

2.3 Apply the Concept

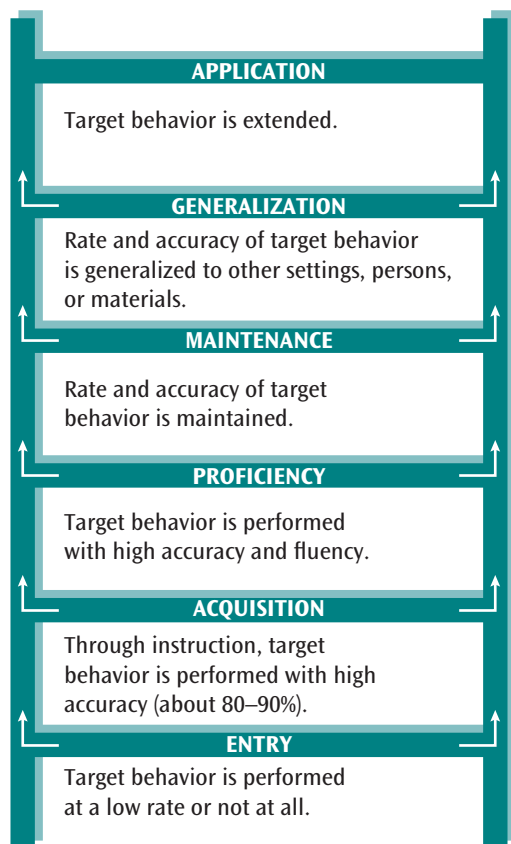
Guidelines for Implementing Time-Out

Time-out, like punishment, is recommended as a *last* resort. Teachers are advised to discuss this intervention with school administrators and parents before implementing it, and should follow these steps:

1. Students should be told in advance which behaviors will result in time-out.
2. The amount of time students will be in time-out should be specified ahead of time.
3. The amount of time students are provided time-out should be brief (1 to 5 minutes).
4. Students should be told once to go to time-out. If a student does not comply, the teacher should unemotionally place the student in time-out.
5. Time-out must occur every time the target undesirable behavior occurs.
6. Contingencies should be set in advance for students who fail to comply with time-out rules.
7. The time-out area requires ongoing monitoring by an adult.
8. When time-out is over, the student is welcomed back to the group.
9. Look for opportunities to reinforce positive behaviors that occur after time-out.

Figure 2.3 Stages of Learning

SOURCE: Based on Rivera, D. P., and Smith, D. D. (1997). *Teaching Students with Learning and Behavior Problems*, 3rd ed. Boston, MA: Allyn & Bacon.



performance the student is currently exhibiting. These are the learning behaviors the student currently demonstrates, such as reading words correctly at 40 words per minute. During the second stage, *acquisition*, the components of the target behavior are sequenced into teachable elements. Each teachable element is taught to mastery through a high rate

of reinforcement, shaping, and consistent use of cues. For example, the teacher conducts a task analysis of the behaviors the student needs to acquire proficiency, such as reading 100 sight words automatically and without error. To break this into parts, the teacher may organize word lists into 10 sight words in a list with activities to practice these sight words until the student is proficient. When the behavior is occurring at a high level of accuracy, the focus of the learning is on *proficiency*. During this stage, the teacher's goal is to increase the student's accuracy and fluency in performing the behavior. For example, the student now can read all 100 words and the teacher may give the student 90 seconds to read the word list correctly, keeping track of time and accuracy with a goal to reducing time and increasing accuracy over a 3-week period. At the next stage, *maintenance*, the goal is for the behavior to be maintained at the target level of accuracy and proficiency with intermittent reinforcement and a reduction in teacher assistance and cues. The next stage is *generalization*, in which the target behavior transfers across settings, persons, and materials. Generalization may be a separate skill that needs to be taught. Apply the Concept 2.4 provides further information on how to teach for generalization. At the final stage, *application*, the learner is required to extend and use the learning in new situations. Application is a difficult skill for special learners, and the teacher's role is to demonstrate and provide a range of opportunities for applying the newly acquired skill.

Hall and Hall (1998) provide helpful suggestions about how to handle the potential problems that occur with time-out. Several of their suggestions follow:

- Add time to a student's time-out for refusing to go to time-out or displaying other inappropriate behaviors such as screaming, yelling, and kicking.
- Students should be required to clean up any mess made during time-out before they return from time-out.

2.4 Apply the Concept

Teaching to Generalize

Assuming that most students will need to “generalize” the strategies learned to other settings, what can teachers do to ensure generalization occurs?

1. Increase students' knowledge of when to use the practices they have learned and how to “reinforce” themselves for using them in other settings. For example, ask students to keep a log of when they practice independently, and provide reinforcement.
 2. Teach students how to develop and apply their own reinforcers for using strategies appropriately. For example, “I remembered to use my cue cards. I now remember better what I read and am more likely to get a good grade.”
 3. Provide opportunities for students to practice the instructional practices within the materials needed to generalize their use. For example, students who have learned to complete math problems with support in the resource room are asked to apply the same problem-solving practices to math problems in the general education classroom.
 4. Observe students in other settings where use of the strategies would be valuable. Provide cues for use, and reinforce appropriate practices.
 5. Systematically support students as they generalize and extend practices to other settings. For example, if students have learned a behavioral practice of “returning to their turtle shell” as a way to stop and think about how they feel before they act, guide students to applying this practice not just in the classroom but also during free time or in the lunch room.
- Be sure to have a backup consequence if a student refuses to go to time-out and the amount of time added reaches 30 minutes (usually considered the maximum amount).
 - Do not argue with individuals when they either try to talk you out of time-out or indicate that you have no right to put them in time-out. Ignore their comments.
 - If the inappropriate behavior involves two students and it is not possible to determine the source of the problem, do not argue; put both students in time-out.
 - Be sure to chart the effects of time-out so that you can determine whether it is working. If negative consequences result from time-out, including poor attitude and response, develop another approach to resolving the behavior problem.

Cognitive Strategy Instruction

How is cognitive strategy instruction (CSI) used to teach academic, cognitive, or social skills?

CSI integrates ideas from behavioral, social, and cognitive learning theories and assumes that cognitive behavior (thinking processes), like observable behaviors, can be changed. This model of instruction is based on the earlier work from social learning theory (Bandura, 1977, 1986) and cognitive behavior approaches (Meichenbaum, 1977; see www.NACBT.org). CSI incorporates principles of behavioral learning but adds principles from social learning theory and cognitive theory that are important to consider when the goal of instruction is to change the way the student thinks. In numerous research studies, CSI has been shown to be particularly effective with students who have learning

problems—especially in mathematics (Donker, De Boer, Kostons, van Ewijk, & Van der Werf, 2014; Swanson, 1999a, 1999b).

Let's look at how Ms. Neal helps Marlow and his classmates better understand the science concepts and textbook she is using in her seventh-grade resource science class. Even though Marlow, a student with behavior disorders, can identify most of the words in the text, he remembers only a few details from what he reads. Ms. Neal wants to teach Marlow and his classmates how to understand and remember the major points of a reading. She decides that if she wants to teach the students this cognitive behavior, she will have to give them a consistent set of steps to use in completing the process, in much the same way that we use a consistent set of steps to tie shoes. She also knows that for the students to learn what to do, they need to observe someone else. But how can she do this?

First, she selects the steps she wants to teach Marlow and the other students to use when they read their science text. Next, she and the students discuss the strategies the students currently use and their effectiveness. They also discuss the importance of improving their skills and the payoff for improvement. Ms. Neal then tells the students about the steps she uses when she reads. To model these steps, she reads and explains what she is thinking (i.e., cognitive modeling). Then she talks them through the steps as the students try them. Finally, Ms. Neal gives the students lots of opportunities to practice the steps when reading their textbooks, encouraging them at first to say the steps aloud as they work through them. She provides feedback on how they are doing, and she teaches them how to evaluate their own performance.

Using these systematic techniques, Ms. Neal finds that in several weeks Marlow and his classmates are improving

in their ability to remember the important information from their science text. In addition, they are beginning not to rely so much on the strategy she taught them. It is almost as if they are using it automatically, without having to consciously remember to use it. Ms. Neal believes that she has taught her students a good strategy for thinking about what they are reading and that she has changed their cognitive behavior (thinking processes). To promote generalization, Ms. Neal discusses with Marlow and his classmates other opportunities they have for using the strategy. The students begin keeping a list, on the board, of occasions when the strategy can be used. They also begin using the strategy on these different occasions (e.g., reading the newspaper during current events, reading other textbooks, editing each others' stories and essays) and discussing how useful the strategy was in helping them.

Common Features of Cognitive Strategy Instruction

CSI has been used to develop a range of academic and social skills. Common features of CSI include strategy steps, modeling, self-regulation, verbalization, and reflective thinking.

Strategy Steps A series of steps are usually identified for the student to work through when solving a problem or completing a task. These steps are based on an analysis of the cognitive and observable behaviors needed to complete the task. Before Ms. Neal began teaching, she determined the steps in the reading strategy she wanted to teach Marlow and his classmates.

Modeling In CSI, modeling is used as a primary means of instruction. Modeling can be a very effective teaching technique. With CSI, students are asked not only to watch observable behaviors as the instructor performs a task, but also to listen to the teacher's self-talk. In this way, the teacher models both observable behaviors and the unobservable thinking processes associated with those behaviors. Being able to model thinking processes is an important component for teaching such cognitive skills as verbal math problem solving, finding the main idea in a paragraph, editing written work, and solving social problems. In most instances, the person who does the modeling is the teacher or a peer, but video and puppets have also been used.

Self-Regulation Self-regulation refers to learners monitoring their thinking and actions through language mediation. Students first use language to mediate their actions by overtly engaging in self-instruction and self-monitoring. Later, this language mediation becomes covert.

Using self-regulation, students act as their own teachers. Students are expected to take active roles in the learning process and to be responsible for their own learning. Although they work under the guidance of a teacher, students are expected to monitor their learning, change or modify strategies when difficulties arise, evaluate their performance, and in some cases provide self-reinforcement.

Self-regulation implies that students develop organizing, planning, evaluating, and goal-setting behaviors that help them regulate their academic learning and/or their behavior. For example, related to academic tasks such as math and reading, students effectively organize their learning tasks and goals, set timelines for accomplishing these goals, establish procedures for evaluating their progress, and have mechanisms for applying strategies to help them learn and meet their goals. Similarly, related to behavior, students who use self-regulation are aware of the behaviors that they are monitoring (e.g., shouting out in class) and identify practices for ensuring that they can meet these goals (e.g., holding up a red card so the teacher knows that they have something very important to say) and practices for monitoring their success. Students may monitor their own behavior and establish either independently or with support from the teacher mechanisms for reinforcing themselves as they achieve goals.

Peer monitoring and support can be extremely useful in increasing appropriate behavior. For example, peers can be taught to help students monitor their behavior and record it (D. H. Anderson, Fisher, Marchant, Young, & Smith, 2006). Peers can be exceedingly helpful in group support and as reinforcers to maintain appropriate behaviors.

In reviewing self-regulation outcome research conducted with students who have behavior disorders, numerous studies indicate that self-regulation procedures can be extremely effective in enhancing both the academic and social behavior of students (J. R. Nelson, Smith, Young, & Dodd, 1991; Oxford, 2016; Vohs & Baumeister, 2016).

Verbalization Verbalization is typically a component of self-instruction and self-monitoring in which overt verbalization or self-talk, that is, talking aloud about the practices to help guide their use, is faded to covert verbalization, that is, saying the practices in one's own head or using them without requiring verbalization. Many CSI programs rely on a talk-aloud or think-aloud technique (e.g., Cromley & Willis, 2016; Rosenzweig et al., 2011; Swanson, 1999b). After listening to the teacher think aloud as he performs the targeted processes and task, students are encouraged to talk aloud as they initially learn

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Video Example 2.4

The teacher in this video models the think-aloud procedure in her fourth-grade class during a reading lesson. She explains the importance of the modeling strategy for teaching and demonstrating cognitive thinking skills.

