Inclusion at the Secondary Level

> ### THE BLUEBERRY STORY: THE TEACHER
> ### GIVES THE BUSINESSMAN A LESSON
>
> "If I ran my business the way you people operate your schools, I wouldn't be in business very long!"
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> I stood before an auditorium filled with outraged teachers who were becoming angrier by the minute. My speech had entirely consumed their precious 90 minutes of in-service. Their initial icy glares had turned to restless agitation. You could cut the hostility with a knife. I represented a group of business people dedicated to improving public schools. I was an executive at an ice cream company that became famous in the middle 1980s when People Magazine chose our blueberry as the "Best Ice Cream in America."
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> I was convinced of two things. First, public schools needed to change; they were archaic selecting and sorting mechanisms designed for the industrial age and out of step with the needs of our emerging "knowledge society." Second, educators were a major part of the problem: they resisted change, hunkered down in their feathered nests, protected by tenure and shielded by a bureaucratic monopoly. They needed to look to business. We knew how to produce quality. Zero defects! TQM! Continuous improvement!
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> In retrospect, the speech was perfectly balanced—equal parts ignorance and arrogance. As soon as I finished, a woman's hand shot up. She appeared polite, pleasant—she was, in fact, a razor-edged, veteran, high school English teacher who had been waiting to unload. She began quietly, "We are told, sir, that you manage a company that makes good ice cream." I smugly replied, "Best ice cream in America, Ma'am."
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"How nice," she said. "Is it rich and smooth?"

"Sixteen percent butterfat," I crowed.

"Premium ingredients?" she inquired.

"Super-premium! Nothing but triple A." I was on a roll. I never saw the next line coming.

"Mr. Vollmer," she said, leaning forward with a wicked eyebrow raised to the sky, "when you are standing on your receiving dock and you see inferior shipments of blueberries arrive, what do you do?"

In the silence of that room, I could hear the trap snap. . . . I was dead meat, but I wasn't going to lie. "I send them back."

"That's right!" she barked, "and we can never send back our blueberries. We take them big, small, rich, poor, gifted, exceptional, abused, frightened, confident, homeless, rude, and brilliant. We take them with ADHD, junior rheumatoid arthritis, and English as their second language. We take them all! Every one! And that, Mr. Vollmer, is why it's not a business. It's school!"

In an explosion, all 290 teachers, principals, bus drivers, aides, custodians, and secretaries jumped to their feet and yelled, "Yeah! Blueberries! Blueberries!"

And so began my long transformation. Since then, I have visited hundreds of schools. I have learned that a school is not a business. Schools are unable to control the quality of their raw material, they are dependent upon the vagaries of politics for a reliable revenue stream, and they are constantly mauled by a howling horde of disparate, competing customer groups that would send the best CEO screaming into the night.

None of this negates the need for change. We must change what, when, and how we teach to give all children maximum opportunity to thrive in a post-industrial society. But educators cannot do this alone; these changes can occur only with the understanding, trust, permission, and active support of the surrounding community. For the most important thing I have learned is that schools reflect the attitudes, beliefs, and health of the communities they serve, and therefore, to improve public education means more than changing our schools, it means changing America.

This true story speaks to the very heart of education: It is our job; our responsibility; and our ethical, moral, and professional obligation to educate every one of the students who come through our doors. Teachers work to maximize the potential in every student. How to best accomplish this is the issue. Inclusion, differentiated instruction, learning styles, learning modalities, multiple intelligences, and blueberries are different concepts related to a common goal.

Diverse students are included in our classrooms, and teachers need a variety of methods and strategies to support students' strengths and address their needs. Inclusion teachers need to be equipped with the expertise and strategies to motivate students and enhance student performance and learning outcomes.

The very best teachers share ideas, pool their resources, and are always looking for another creative way to structure a lesson or to motivate a reluctant learner. It is impossible for any one person to possess the knowledge, ability, and creativity to meet the needs of every student in the classroom, but each of us continues to strive toward this goal. Teachers consistently seek out methods to positively affect student growth. This book is one such resource that will build your repertoire of strategies to support and engage students of varying needs in the inclusive secondary classroom. Please take this journey with us.

DEFINITION AND RESEARCH

Inclusion is the term used to describe the education of students with disabilities in general education settings (Mastropieri & Scruggs, 2000). Inclusion is based on the philosophy that all students with disabilities have a right to be educated in a general education setting with appropriate support and services to enable them to succeed. In comparison to elementary education, there has been less attention but greater needs at the secondary level for effective inclusion practices. Heightened secondary inclusion challenges include but are not limited to increased student diversity, high-stakes testing with increased numbers of individuals with disabilities participating, increased content area instruction, new requirements for highly qualified teachers, and expectations to meet higher standards for all students (Dieker, 2007; Sabornie & deBettencourt, 2009). General and special educators are now legally accountable for diverse student performance. Shifts in the roles and responsibilities of teachers, especially at the secondary level, necessitate that they modify their planning and instruction to meet the needs of the inclusive classroom (Muraski, 2009).

Accountability no longer lies with the special educator alone (Smith, Palloway, Patton, & Dowdy, 2006). Inclusion recognizes that all students are learners who benefit from meaningful, challenging, and appropriate curricula and differentiated instruction techniques that address their unique strengths and needs (Salend, 2005). Effective inclusion is the result of a collaborative effort of general educators, parents, related service providers, and all school community members who share roles in the successful education of students with special needs. Salend (2005) and Smith et al. (2006) summarize the advantages of inclusion when students who are classified are included in general education curricula and can benefit socially and academically without facing the stigma of segregated or pull-out classrooms. Standards for behavior and instruction are higher, and students with classifications have more opportunity to reach higher standards and become independent learners. Studies also indicate that students without disabilities can benefit from inclusive settings. Findings reveal academic performance is equal or superior to comparative groups of students educated in noninclusive settings, and students with severe disabilities do not significantly limit or interrupt instructional time for nondisabled peers in inclusive settings. Friendships and awareness of diversity are also benefits of an inclusive classroom for individuals without disabilities.

THE INCLUSIVE CLASSROOM AT THE SECONDARY LEVEL: WHO ARE WE TEACHING?

The inclusive classroom includes students with and without disabilities. Diverse student learners are identified, and the characteristics of learners are considered in the planning and instructional process. Students with special education classifications, served under the Individuals With Disabilities Act (IDEA), include those with the following classifications: autism, communication disorders, deaf-blindness, hearing impairments, other health impairments, emotional disabilities, specific learning disabilities, cognitive impairments, traumatic brain injuries, and visual impairments.

At the secondary level, the majority of students with special education classifications have high-incidence disabilities. They include learning disabilities, high-functioning intellectual disabilities, emotional disturbances, and traumatic brain injury. Some students with high-functioning autism may also fit within the category of mild disabilities and are served in secondary general education settings. Attention Deficit Hyperactivity Disorder (ADHD) is not recognized as a disability category, but more students with ADHD are found in secondary inclusion classrooms, sometimes classified as *other health impaired* (Hallahan, Kauffman, & Pullen, 2010).

Other instances of classroom diversity not associated with disabilities but important in the inclusive academic and social learning experience are cultural and linguistic diversity, such as English Language Learners; at-risk students, such as students with sociocultural disadvantages and limited experiences; gifted and talented students; and students who exhibit specific skills or abilities substantially above others of their age and grade level. Even without a classification, "average" students come to the classroom with unique abilities, needs, and interests.

THE ADOLESCENT LEARNER

Who are adolescent learners, and why is it so challenging to meet their needs? For the purpose of this book, we are targeting students in middle and high school, typically ages 11 to 18, the early adolescent and adolescent years. It is not surprising that the middle school years, sometimes referred to as the wonder years, describe a period when individuals experience more growth than at any other time in their lives since infancy. The following characteristics of adolescents emerge at the middle school level and make them unique learners: the need for autonomy and independence, the need for socialization and social acceptance, curiosity, and the quest for adventure and sensitivity. They are vulnerable and emotional. As adolescents are developing their personal identities, self-esteem and social acceptance are critical (Saylers & McKee, 2002).

Adolescents have specific learning characteristics that have implications for instructional planning and classroom learning. First, they prefer active engagement in the learning process (Checkley, 2005; Lent, 2006; Saylers & McKee, 2002). They are also critical thinkers who begin to reflect, creating and finding relationships among similar ideas and concepts as well as cause and effect (Saylers & McKee, 2002; Wilson & Horch, 2002). Adolescent learners respond to explicit modeling, practice, organization, and structure (Gore, 2010; Swanson, 2001;

Swanson & Deshler, 2003). An active learning environment is preferred as adolescent learners have limited attention spans and are easily bored (Dieker, 2007; Karten, 2009; Nunly, 2006).

Sabornie and deBettencourt (2009) identify the common characteristics of adolescents, with classifications, who are students in inclusive classrooms at the secondary school level:

1. Academic Deficits—This refers to poor basic skills. Literacy, reading and writing, represents the greatest academic area of need. Math and problem solving are also concerns. Academic deficits are the hallmark of students with learning problems at the secondary level (Hallahan et al., 2010).

2. Cognitive Deficits—Adolescent learners passively approach learning. They have memory and attention problems that hinder mastery of content. These students do not have the cognitive strategies to support their own learning processes.

3. Social Interaction Deficits—Students with mild disabilities have a difficult time being accepted and developing peer relationships. Even suicide and depression has increased significantly among this population, unfortunately becoming a leading cause of death for this age group.

4. Study Skills Deficits—Studying and test taking pose challenges for adolescent learners. They make little use of cognitive strategies but will perform significantly better when presented with strategies to organize and interact with material (Lenz & Deshler, 2004).

5. Organization Deficits (sometimes connected with study skills)—This is another concern for adolescents. They have trouble note-taking, organizing their materials, and keeping up with the school agenda while navigating middle and high school environments.

6. Motivation Problems (often connected with passive learning)—Students with mild disabilities may exhibit learned helplessness and believe academic success is beyond their control. This may be attributed to years of failure. Without taking active roles in learning, most will not succeed.

While many of these characteristics are evident early in a student's learning career, they become more evident as years pass and the gap increases. As students enter secondary school, the focus shifts to content instruction at a faster pace, which can be daunting for adolescents with cognitive, social, or emotional needs.

HELPING TEACHERS MEET THE INCLUSION CHALLENGE

Although general education teachers typically support the concept of inclusive education, they often find themselves unsupported and ill equipped to provide effective instruction and support for diverse students in the inclusive classroom (Bender, 2008; Mastropieri & Scruggs, 2000). Teachers are often hungry for strategies to support students with disabilities in the general education classroom

(Bender, 2008). Even when teachers have positive attitudes toward inclusion, knowledge of how to adapt instruction, and the desire to make instructional changes, they still do not significantly alter their traditional whole-group instructional approaches (Friend & Bursuck, 2002). As coteaching becomes more common in the inclusive classroom, two teachers have even more opportunity to provide "unique and high-involvement instructional strategies to engage all students in ways that are not possible when only one teacher is present" (p. 110). Such creative options enhance learning for all students, not just those with disabilities (Friend, 2010).

Active learning is a viable option that can accommodate diverse student needs in the inclusive classroom, meeting student and curricula challenges (Udvari-Solner & Kluth, 2008). Adolescent learners benefit from active learning experiences as they become engaged and motivated to participate in the learning process (Gore, 2010; Maday, 2008; Lent, 2006; Reilly, 2002; Saylers & McKee, 2002; Swanson & Deshler, 2003). Brain-based learning and motivational research support such strategies because they provide opportunities to engage students in the learning process. Active learning strategies can be instrumental in the teacher's quest to create positive learning experiences and outcomes. This book provides an opportunity for teachers to explore a multitude of active learning strategies that support students academically and socially in inclusive settings.

WHAT IS ACTIVE LEARNING?

Active learning is the intentional opportunity for students to engage in the learning process. It connects learners to the content through movement, reflection, or discussion, making students the center of the learning process as they take the initiative to learn. It can be behavioral or cognitive, supporting a variety of instructional objectives from recall through synthesis (Green & Casale-Giannola, 2011). Silberman (1996) addresses the question of what makes learning active. He explains, "When learning is active, students do most of the work. They use their brains, study ideas, solve problems, and apply what they learn. Active learning is fast-paced, fun, supportive, and personally engaging" (p. ix). Often students are out of their seats, moving about, and thinking aloud. Active learning engages and motivates students while enhancing understanding and performance (Guillaume, Yopp, & Yopp, 2007; Silberman, 1996, 2006; Udvari-Solner & Kluth, 2008; Zmuda, 2008). It is important to make learning active because, to learn something well, a student needs to hear it, see it, ask questions about it, and discuss it with others. Above all, students need to do it (Silberman, 1996).

Research studies report that many active learning strategies are equally effective for mastering content when compared with lecture formats; what is significant is that active learning strategies are superior to lectures for student achievement in thinking and writing. Cognitive research also supports the premise that student learning styles are best addressed with multiple instructional methodologies (Bonwell & Eisen, 1991). Bonwell and Eisen, educators who popularized the term *active learning*, describe its general characteristics as follows:

- Students are involved in more than listening.
- Instruction emphasizes the development of students' skills rather than just transmitting information.

- Students develop higher-order thinking skills (analysis, synthesis, evaluation).
- Students are engaged in activities (e.g., reading, discussing, and writing).
- Students explore their own attitudes and values.

Pedagogy that includes interactive teaching strategies leads to education for sustainable learning (Corney & Reid, 2007). Teachers who embrace experiential learning can use active or hands-on experiences as methods to recognize desirable outcomes and endorse student-centered instructional approaches (Fenwick, 2001). Research has confirmed that student-centered, hands-on experiences improve construction of knowledge, comprehension, and the retention of content information.

Active learning strategies can support all levels of objectives in Bloom's Taxonomy, from knowledge and translation to evaluation and synthesis. Active learning is particularly important for application, which is necessary for learning to transfer from short-term to long-term memory and be easily retrievable. Jarolimek and Foster (1981) describe the *activity mode* of teaching as a set of strategies that involves students in learning by doing things that are meaningful and related to the topic of study. Techniques include role-playing, constructing, interpreting, preparing exhibits, processing, groupwork, and games. Active learning may also apply to inquiry modes of learning, which include techniques such as drawing conclusions, asking questions, and stating hypotheses (Wood, 2009). The strategies shared in this book are designed to actively engage students in their own learning. Alone, they are activities, but once the activities are connected to specific learning and behavioral objectives, they become strategies to support learners and achievement outcomes. This active learning concept relates directly to the Native American proverb, "I hear and I forget; I see and I remember; I do and I understand" (Wood, 2009).

BRAIN-BASED LEARNING AND THE ADOLESCENT LEARNER

Brain-imaging devices can now give researchers a look inside the brain and determine which areas are involved as it carries out certain tasks. Some of these discoveries are valuable for diagnosing medical problems, while others have implications for what educators do in schools and classrooms (Sousa, 2007). William Bender (2002) lists 10 tactics for a brain-compatible classroom, based on the accumulated research in this area, including the following:

- Structure frequent student responses.
- Pair physical movement to learning tasks.
- Use visual stimuli for increasing novelty in the learning task.
- Give students choices.
- Use students to teach each other (p. 26).

Specifically, adolescents with learning problems have trouble encoding information into their memory systems and lack basic skills and cognitions that support high-order thinking. They have to retrain their brains to make meaningful connections to newly learned concepts. "Each time a neural trace is activated, that

arm of the neuron becomes stronger and easier to access the next time. . . . The brains of students with learning problems are not as efficient in making those neural traces stronger, so they need to activate the traces more frequently in order to strengthen the connections. Thus, repetition through multisensory, multirepresentational input, practice, and frequent review are necessary" (Gore, 2010, p. 25).

Adolescents, specifically, can benefit more from cooperative social learning experiences than elementary school children. It is easy to visualize elementary students waving their arms frantically, popping out of their seats and chanting "Me, me" when asked to respond to a question. It is even not surprising when one of these avid youngsters is called upon and the class finds they have nothing to say; they were just excited to participate. It is not so with adolescents who are cautious among peers to participate as image and social acceptance are critical at this stage. Cooperative learning experiences can provide opportunities to engage socially without the stress of being singled out or called to the board alone. Brain processes that create emotional stress and discomfort can interfere with knowledge connections, retrieval, and the flow of information. Creating active learning opportunities that engage adolescent learners effectively supports their emotional need to be accepted and acknowledged among their peers (Willis, 2007). Allowing students to learn collaboratively and cooperatively at this stage also supports students with a wide range of academic ability and social maturities while developing group problem-solving skills (Wilson & Horch, 2002).

Clearly, using active learning strategies that involve students directly in their own learning is compatible with what we are learning about brain function. These strategies can help to differentiate instruction and support students with and without disabilities in the classroom (Bender, 2008). Many of these strategies involve movement, which can cause the brain to release dopamine and noradrenalin, neurotransmitters that help learners feel better, increase energy levels, and assist their brains to store and retrieve information (Jensen, 2000).

INFORMATION PROCESSING

Figure 1.1   Information Processing Model
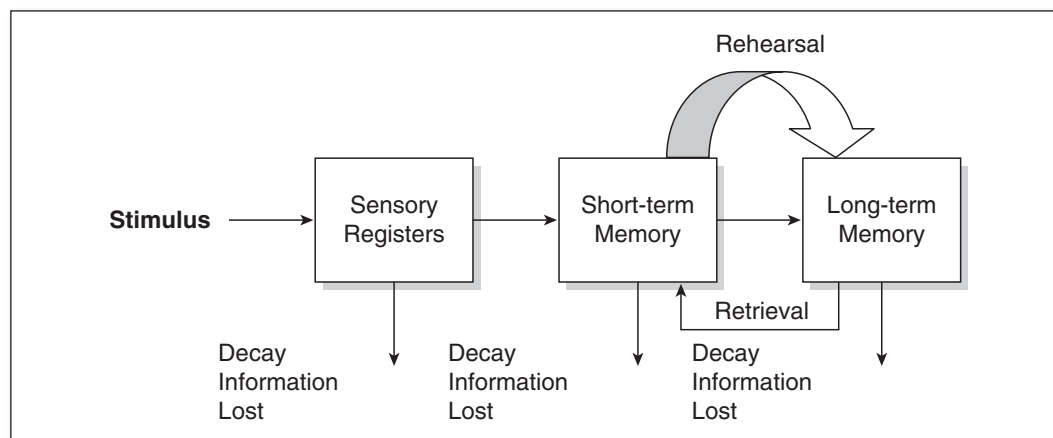
Source: Swanson (1987).

Information processing refers to how people learn new content. The information processing model in Figure 1.1 (page 8) "is an attempt to describe how sensory input is perceived, transformed, reduced, elaborated, stored, retrieved, and used" (Swanson, 1987). The stimulus is perceived by sensory registers and transferred to short-term memory. At this point, there is rehearsal of new content in order for it to be transferred to long-term memory, from which it can be retrieved (Sliva, 2004). Simply stated, learners have to do something with new information to keep it in short-term memory or transfer it to long-term memory in a meaningful way so that it can be retrieved as needed.

Think about a junk drawer you may have in your house. (Doesn't everybody have at least one in the kitchen where keys, pens, and all kinds of small objects are jumbled together?) Compare this to your silverware drawer, where each item has a place. In which drawer is it easier to find what you need quickly? Organization facilitates retrieval. In the same way, new information needs to be held in short-term memory or transferred from short-term to long-term memory in an organized manner so that the student can find and retrieve this information easily.

> If information is to be learned, it will either be transferred to and stored in long-term memory, or a strategy will be utilized to keep the information in short-term memory. Unless a strategy is used to remember this information, it will be lost in about 15 seconds. Some strategies that can be utilized to keep this information active in short-term memory are to rehearse the information, chunk it, elaborate on it, or create visual images of it. Information is then transferred from short-term memory to long-term memory where it is stored until needed. (Sliva, 2004, p. 16)

Teachers can help students make multiple brain connections to support memory. The more connections a student has to specific knowledge, the more opportunity the student has to retrieve information. There are several opportunities for students to store knowledge, including making personal connections, using multisensory application and presentation, and establishing emotional connections and connections to personal experience. When multiple regions of the brain store data, more interconnections are made, and data is cross-referenced. This cross-referencing strengthens the data into something students learn as opposed to something students just memorize (Willis, 2006).

In a meta-analysis, Swanson and Deshler (2003) identify three applications that support the learning process for adolescents with learning disabilities: (1) selecting the central process that makes the details and facts hang together and identifying relationships among concepts; (2) selecting and instructing devices that make the content more understandable and memorable; and (3) presenting content in a way that actively involves students while enhancing their learning (pp. 129–130).

Based on these findings, teachers need to be deliberate in their planning to actively engage students in the learning process while finding ways to provide advanced organization or concepts and strategies to rehearse and reinforce learning. *Rehearsing* the information refers to going over it more than once. *Chunking* it refers to dividing the information into smaller pieces or sections and studying each section. We can also chunk information in sections that relate to one another.

When we *elaborate* on new content, we describe it in more depth, often relating it to prior knowledge. *Creating a visual image* of new content can include pictures, symbols, or diagrams to help us remember. The important point is that, in order to fully learn new information, we have to become involved with the learning process, utilizing one or more strategies to promote understanding and keep the material in short-term memory or facilitate meaningful storage in long-term memory. Information processing generally takes place both unconsciously and automatically. As learners, we are not always cognizant of how and when the procedure takes place (Sliva, 2004).

As educators, it is important for us to be aware of this process and of how we can design instruction that encourages successful information processing. Including active learning strategies in instructional design is one way to accomplish this. Information from brain-based research translates into many effective classroom applications for active learning in the adolescent classroom. To hold the attention of adolescent learners, teachers can design student-centered experiences that include a full range of sensory motor experiences, including music, touch, and emotion. Providing multiple ways for students to approach learning and encourage questioning and inquiry-based instruction supports adolescent learning while building complex neuron connections within the brain (Wilson & Horch, 2002). Such applications are clearly connected to active learning strategies that can support differentiated instruction, allowing teachers to meet the diverse needs of individual students in the inclusive classroom.

CONNECTIONS TO DIFFERENTIATED INSTRUCTION

Differentiated instruction provides multiple opportunities to support diverse students in inclusive settings. It requires teachers to identify the strengths and needs of their students and possess a repertoire of strategies to support students with and without disabilities. It challenges teachers to study and think about the learning process as they find avenues to engage and motivate diverse students. It takes into account individuals' needs, readiness, interests, and learning profiles. It focuses on instruction that appeals to and engages each student (King-Shaver & Hunter, 2003).

Interest refers to curiosity and passion for a specific topic, while *learning profile* refers to a student's intelligence preferences, gender, and learning style (Tomlinson, 1999). Teachers must be ready to engage students in instruction using different learning modalities (visual, auditory, kinesthetic, or tactile), appealing to interests and degrees of complexity. Differentiated instruction focuses on the content, product, and process of learning (Tomlinson, 1999).

Tomlinson (1999) recommends teachers use students' differences as the foundation for instructional planning. When choosing activities that engage and include students, purposeful and flexible grouping is always a consideration. Visual, auditory, kinesthetic, and tactile approaches may meet the students' preferred learning modalities or support a multisensory approach. Many of the active learning strategies support students at different functioning levels and allow them to contribute their perspective in a number of ways: in written and

oral communication, in groups, or individually. Choosing a strategy to support learners well means that teachers have already identified the abilities and profiles of their students and have considered content and presentation. It often means encouraging students to understand multiple viewpoints and share reflections. Providing students with choices and making connections to the interests of adolescents engages them in learning while addressing their need to show independence (Wilson & Horch, 2002). Each student is different, and the strategies in this book are designed to help educators develop a repertoire of strategies in order to meet specific student needs effectively. Although many of the strategies are movement and cooperation based (such as Ball Toss, Spider Web, Jigsaw, and Linked-In), others are individual and reflective (such as Exit Cards, Self-Reporting and Through Our Own Lens). Teachers are encouraged to adapt and modify strategies to support the differentiated needs of adolescent learners.

SUPPORTING STATE STANDARDS AND ASSESSMENTS

At a time when teachers feel overburdened and overpressured by new initiatives, standards, high-stakes assessments, and increased student needs in the classroom, the last thing a teacher needs to do is try yet another idea! However, it can be "Active learning to the rescue" as opposed to "Please! No more extra work!" Active learning strategies support objectives, standards, and assessments rather than add to them. Standards-driven instruction can be effectively aligned with differentiation and active learning to create learning experiences that make physical, emotional, and reflective connections to objectives that impact student growth and goal attainment (Gregory & Kuzmich, 2004). Active learning supports the instructional process and product of the classroom by building a community of learners who are cooperative, interactive, and brain compatible. These concepts are aligned with the research that supports standards (Benson, 2009). Standards should support the globalization of learning as teachers are committed to big ideas rather than textbook chapters and guides. Lesson choice and design should become clearer with a standards focus (Perna & Davis, 2007).

Although each state has its own academic standards, they typically include goals such as comprehension, writing proficiency, numeric operations and applications, inquiry, analysis, historical perspective, problem solving, comparing, making real-life connections, and so on. Standards set high expectations for students while keeping teachers focused on critical thinking in the learning process. Active learning strategies specifically support standards as well as academic and behavioral objectives. For example, strategies such as Traveling Teams, Round Robin, and Why and Because can be used to evaluate, synthesize, and/or make connections to different concepts.

Assessments are designed to measure what students know and what they need to learn in relation to the standards. Grades no longer evaluate what students know. Now, educators and politicians are looking at what students know in comparison to others. This does not mean that learning cannot be motivating and meaningful, but it needs to be focused with deliberate practices to support

diverse learners (Benson, 2009; Perna & Davis, 2007). Teachers need to make connections between standards and student achievement, tailoring instruction to provide opportunities to reflect and apply knowledge to real-world contexts. A clear, standards-based curriculum allows for review and application without redundancy, all of which are key components of active learning (Perna & Davis, 2007).

State assessment or high-stakes testing used for promotion, rating, or placement typically brings on undue stress that can be passed from administrator to teacher to student. Families and entire communities can feel anxious and tense until the tests are over. Some teachers feel compelled to teach to the test, and you may hear comments like "We can finally teach" after assessments are administered. Certainly, statewide testing is meant to evaluate student performance, not to replace instruction, but accountability and competition in the field of education sometimes cause educators to think otherwise. Although assessments, like standards, differ among states and even districts, many of the concepts are the same.

Two of the objectives that assessments typically test include the following:

1. Basic skills including reading, writing, and mathematics

2. Subject area content knowledge

Active learning strategies can help teachers meet these two key assessment objectives. They support teachers in their efforts to teach, review, and reinforce. For example, basic skills and content knowledge can be reviewed using Traveling Teams, Face Place, and Next.

The ability to develop concepts to explain and persuade, which writing assessments often require, can be supported by activities such as Invention Convention, Barometer, and Concept Clarification, which can provide teachers with data on formative and summative objective and standard attainment, thus making student performance evaluations meaningful and generating information to guide future teaching decisions. At the same time, active learning makes dull, difficult, or repetitive material interesting and engaging.

MOTIVATING LEARNERS WITH ACTIVE LEARNING STRATEGIES

Consider the fact that, in 1926, John Dewey asked, "Why is it, in spite of the fact that teaching by pouring in, learning by passive absorption, are universally condemned, that they are still so entrenched in practice" (p. 46)? It is hard to believe how history continues to repeat itself.

Motivation refers to students' willingness to engage in lessons and learning activities. For teachers, a major goal of lesson development is to identify motivational strategies that encourage students to engage in classroom activities that meet specific educational objectives (Brophy, 1997). Engaged students investigate educational content more thoroughly (Zmuda, 2008).

Motivation affects learning. As you read, take a moment to think about your own learning. Recall a situation in which you were highly motivated to learn. Then, contrast this experience with a learning situation in which your motivation

was low (or maybe nonexistent).What was the difference? Why? How can we use what we know about our own learning experiences to shape our teaching and encourage our students to be active participants in their own learning?

When students report high levels of motivation to learn, four factors are generally present: the opportunity to learn, facilitators who probe for student response, support for student learning through modeling, and scaffolding and evaluation. Strategies that incorporate these factors, such as the strategies in this book, result in increased student motivation and involvement. Research suggests that the transition from elementary to secondary school leaves the adolescent with specific needs. The middle school environment and adolescent development can be a mismatch for motivation in the early adolescent years. There are more rules and regulations, the relationships between teachers and students are limited, and there is little choice. All of these factors do not support the adolescent learner who seeks autonomy, independence, and a social learning experience that strengthens self-identity and self-esteem (Anderman & Maehr, 1994).

We also acknowledge that increased time, curriculum, standards, and high-stakes testing constraints have left teachers with little room to devote to process and outcome connections at the secondary school level. With the shift in focus from teaching to learning in an era of accountability, it is important to support teachers in their efforts to find motivating strategies that improve achievement for diverse learners. Uguroglu and Walberg (1979) provide substantial evidence that motivation is consistently and positively related to educational achievement. Research also clearly indicates that active learning engages and motivates diverse students in the learning process and has resulted in increased performance outcomes (Carroll & Leander, 2001; Ginsberg, 2005; Rugutt, 2004; Smart & Csapo, 2007; Wood, 2008).

Active learning can be an effective and essential instructional component of the inclusion classroom. Students with special needs who are actively involved and engaged tend to learn more and faster. Hands-on interactive learning appeals to the senses and provides a reason to learn, promotes attention to task, and may lessen negative behaviors (Choate, 2004).

The ability to motivate students is fundamental to equity in teaching and learning, and it is a core virtue of educators who successfully differentiate instruction (Tomlinson & Allan, 2000). Awareness of and respect for diversity, such as cultural differences, encourages teachers to invite the experiences, concerns, opinions, and perspectives of diverse students to be shared and valued in the learning process.

Lessons that respect diversity are especially motivating for students from low socioeconomic communities. Students will be more motivated to learn when their voices and perspectives are shared and valued and connections to personal experience are made. Learners will be more engaged by teachers who help them connect to and respect one another in the learning process (Ginsberg, 2005). Overall, teachers can redesign the teaching and learning environment by providing different learning strategies to different students and finding ways to motivate students to learn as they engage them in the active learning process (Rugutt, 2004).

Active learning strategies are not one size fits all. Each strategy shared in this book must be carefully examined to make sure it can be used to make

meaningful connections to student needs, interests, and abilities while clearly connecting to lesson objectives, purposes, and appropriate state standards. Although some active learning strategies are cooperative and others are individual in nature, all provide distinct alternatives to lecturing and identify the student as the center of the learning process. Encouraging engagement and motivation ultimately enhances learner outcomes for all students.

ACCESS IS NOT ENOUGH: THE CRITICAL NEED TO ADDRESS DIVERSE STUDENT POPULATIONS

The conception of disabilities has changed dramatically in the past several hundred years in a multitude of ways. Historically, people with pronounced disabilities were, more often than not, beggars walking around with cap in hand, looking for money with which to support themselves. Hence, the term *handicapped*, derived from "cap in hand." Today, we try to include and value individuals with disabilities in society and in the education process.

As a result of recent legislation, the critical need to address diverse student populations has become more and more apparent. From 1954 to 1975, landmark legislation tried to protect and include diverse student populations in the educational process. *Brown v. Board of Education* (1954) ruled that segregation based on race and other educational factors was unconstitutional. *Hansen v. Hobsen* (1967) ruled that ability grouping or tracking violated due process and equal protection under the Constitution. In 1970, *Diana v. State Board of Education* required that students be tested in their primary language. In 1975, the Education for All Handicapped Children Act (PL 94-142) mandated that students with disabilities must receive the most appropriate services and are entitled to receive a free and appropriate public education in the least-restricted environment (LRE; Gable & Hendrickson, 2004). The LRE clause of PL 94-142 and the Regular Education Initiative (REI) from the 1980s called for the restructuring of special and general education, supporting the inclusion of at-risk students, culturally diverse students, and students with disabilities in the general education classroom (Gable & Hendrickson, 2004).

Unfortunately, many years later, students with learning differences were still excluded from the general education curriculum. Schools and teachers were not held accountable for the achievement and performance of students with special needs. In 1997, the Individuals With Disabilities Education Act (IDEA) required inclusion of individuals with disabilities in the general education curriculum, holding the general and special education teachers accountable for the achievement of students classified with special needs (Karten, 2005).

Moreover, in 2001, President George W. Bush introduced the No Child Left Behind Act (NCLB; PL 107-110), which made schools accountable for the performance of many diverse populations, including students with diverse ethnic and cultural backgrounds, students with disabilities, males and females, and students of varying socioeconomic status. Differentiated assessments are selected by specific states and schools to identify and report the Annual Yearly Progress of the school as well as the disaggregated data from diverse student groups. All student achievement must be recorded in school data, and teachers are expected to

implement research-based instructional practices to support quality education for all students. Thus, in an era of inclusion and accountability, access is not enough. Educators are more responsible for the quality of instruction and diverse student population performance than ever before.

At the secondary level, federal legislation, NCLB, created an even greater need for inclusion. This act is the most significant reform connected to the Elementary and Secondary Education Act (ESEA) since its enactment in 1965. It redefined K–12 education and hoped to close the achievement gap between the majority of general education students and their minority and disadvantaged peers (Sabornie & deBettencourt, 2009). First, NCLB was another federal law introduced to support IDEA in moving students to participate more completely in the general education curriculum, and the *highly qualified* teaching criteria were established. This meant that all teachers who teach a subject area above the fifth grade level must have expertise in that content area. Special education teachers at the secondary level were no longer allowed to provide instruction for a specific content area unless those teachers were coteaching with a licensed content area educator or the special education teacher also held a license in that particular content area (Sabornie & deBettencourt, 2009). Therefore, NCLB created additional challenges at the secondary level, including shifts in teacher roles and accountability, less interaction between students with classifications and special education teachers, the identification and hiring of qualified personnel, and scheduling for in-class support or coteaching partners.

Legislation and the inclusion movement have not just relocated students from self-contained to inclusion classrooms. The movement has had a serious impact on the roles and responsibilities of teachers. General educators are responsible for the performance of growing numbers of diverse students in their classrooms. To ensure the success of students, general and special educators must work collaboratively to combine their knowledge of what to teach with the knowledge of how to teach (Choate, 2004). Educators often appreciate diverse learners in their classrooms but feel they lack the resources and expertise needed to support their learning (Bruneau-Balderrama, 1997; Mastropieri, 2001; Snyder, 1999). Teachers need the skills and experience to meet the specific needs of different students in the classroom, so they feel empowered to teach successfully (Cook, 2002; O'Shea, 1999). Rather than dispense knowledge, an educator should guide and facilitate interaction to encourage learners to question and challenge ideas, opinions, and conclusions. Active learning has numerous positive attributes and is independent of age, cross-cultural, easy to acquire, and independent of measures of intelligence (Jensen, 2001).

THE BEGINNING

At the beginning of this chapter, we invited you to take a journey with us. We hope you're ready. Right now, if you choose to come along, you'll need a few things:

- An understanding of the characteristics of adolescent learners and how this clearly informs instructional design

- An understanding of your inclusive student population (consider classification, ages, interests, learning styles, dynamics, abilities, strengths, needs, etc.)
- Curriculum—goals and objectives for specific units and lessons—and standards that inform the curriculum
- A willingness to adapt and be flexible
- A willingness to reflect
- Motivation to excite and engage your students with your own enthusiasm for teaching and learning
- A good travel partner—it will be a lot more fun, and you'll need the support!

CHAPTER 1 SUMMARY

- Inclusion is the term used to describe the education of students with disabilities in the general education classroom with appropriate supports and services to enable them to succeed.
- Inclusion challenges at the secondary level include increased student diversity, high-stakes testing, increased content area instruction, and highly qualified teacher requirements.
- Teachers need to be equipped with a repertoire of strategies to support diverse learners in the inclusive classroom.
- Adolescents seek independence, socialization, and social acceptance. They are curious, adventurous, sensitive, vulnerable, and emotional.
- Common characteristics of adolescents included in the secondary classroom are academic deficits, cognitive deficits, social interaction deficits, organizational deficits, and motivational problems.
- Active learning is the intentional engagement of students in the learning process, supporting behavioral and cognitive objectives as well as appropriate state standards. Students are engaged, having fun, and at the same time, are at the center of their own learning experiences.
- Adolescent learners prefer active learning strategies and respond to explicit modeling, practice, organization, and structure. Adolescents respond to cooperative and social learning experiences.
- Legislation, such as IDEA and NCLB, continues to increase the number of students in the inclusive classroom and requires that secondary special educators become highly qualified in content area instruction.
- Active learning strategies can support attainment of state standards and successful performance on state assessments.
- Active learning can support teachers in their efforts to differentiate instruction to improve the performance of all learners.