The young teacher education major furrowed his brow and frowned at me. “I’m going to be a high school history teacher, not a special ed. teacher. Why should I worry about inclusion strategies? After all, special education teachers are paid to work with kids who can’t learn! Not me!” I smiled and thought to myself, I’ve got a long way to go with this youngster!

Every semester that I teach secondary and middle school teacher-education interns, I have to explain why a class on teaching students with exceptional learning needs in the general education classroom is required. I understand the question. The students who ask me were educated in school systems in which “those kids” went somewhere else for their academic core classes—no one knew exactly where they went for instruction or what they learned, but they didn’t learn what everyone else learned, and teaching them was not the job of the history, science, English, or math teacher.

Thus, these aspiring teachers think that classes consist of the “brainy kids” and the “regular kids,” none of whom need additional assistance or support from the general education teacher. The idea that every class has struggling learners—some of whom receive special education services, but most of whom do not—is new to these neophytes. Mine is the fun of introducing them to struggling learners and the strategies that can help them succeed in the general education classroom.

However, the neophytes demand more reasons for having to learn how to teach struggling learners, and that’s the point at which No Child Left Behind (NCLB) and the Individuals with Disabilities Education Act (IDEA, officially IDEIA, the Individuals with Disabilities Education Improvement Act, but still known by the prior name) become involved; NCLB and IDEA are the first of the letters behind this book.

**NO CHILD LEFT BEHIND**

Every educator in America is familiar with NCLB. No Child Left Behind, commonly referred to as *nickelbee*, requires that every child be taught using teaching strategies that
are scientifically based. *Scientifically based* means that educational researchers have investigated a teaching strategy using systematic, empirical methods that were based upon experiment or observation. The research methods and instruments must have been both scientifically valid and reliable. The researchers have then rigorously analyzed the data from the experiments or observations and have justified their conclusions. Their findings have been replicated and confirmed by other researchers and examined by peer experts who have concluded, “Yes, this teaching strategy has scientific evidence that it is effective.”

I tell my teacher candidates, “If a teacher doesn’t use strategies that are scientifically based, then he or she is using ‘teacher folklore.’ We’re committing malpractice when we waste the time of struggling learners with teacher folklore. They are already struggling. We have a moral imperative to use best practice to help them learn. And every single minute counts.”

In addition to requiring scientifically based teaching strategies, NCLB demands teacher accountability. Under NCLB, students are required to take high-stakes academic tests every year in third through eighth grade, and at least once during high school, to show that teachers are teaching and students are learning. The mandate is clear: Every teacher must teach every child. But what if a teacher doesn’t use research-based teaching strategies? What if a teacher’s students don’t measure up on standardized tests?

Each state is required to report the test outcomes to parents and to the public according to disability status, socioeconomic class, level of English proficiency, and racial and ethnic group. This report is popularly called the “School Report Card.”

This is in contrast to the previous requirement that only overall school performance be reported. It used to be possible for schools to receive high ratings yet have entire subgroups of students who scored consistently lower than their peers. Those days have passed. Teachers are now being held accountable for students with disabilities as well as those without, students who live in poverty as well as those who have socioeconomic advantages, and students of diverse racial and ethnic groups.

A school that is deemed “low performing” on standardized tests for two consecutive years will face consequences. Students in that school will be allowed to transfer to another school that is not low performing, and the school from which they transfer must pay transportation costs.

Schools that are deemed low performing for three years are required to pay for tutoring, afterschool programs, and summer school for students whose parents request such services. The parents are free to choose a tutor or afterschool program from a list of providers, and the school has to pay those providers.

Schools that receive low marks for four years may place heavy consequences on the teachers whose students score poorly on the standardized tests: They may fire those teachers. Firing teachers who have poorly performing students is considered part of restructuring a failing school. In addition to the termination of ineffective teachers, the school may hire outside consultants, implement new curricula that address shortcomings in the previous curricula, and train teachers in the new curricula. The schools may also overhaul their management structures.

If those changes are not effective after one year, schools that are low performing for five years may find their principal and staff replaced. Then the district may hire a private company to run the school and designate it as a charter school.

The few schools that are still low performing on standardized tests after the sixth year will find themselves in the position of being taken over by the state’s department of education.
Principals are testy about having their schools listed in the media as being low performing. They are embarrassed personally and professionally. They intensely dislike losing students because that means losing funds, and they don’t like having to reroute funds to pay for transportation to other schools. When they have to pay other organizations or individuals to provide afterschool tutoring or afterschool care, principals become irritable beyond belief. Few will hesitate to fire the teachers who are responsible for their school’s poor performance if they hit the magic four-year low performing threshold. At that point, principals’ faces flush crimson because they realize that without a dramatic turnaround the following year, they will be the ones on the chopping block.

RESPONSE TO INTERVENTION

The next set of letters in this book is RtI. If NCLB is the cake, RtI is the ice cream. RtI stands for Response to Intervention, and it is a requirement of the reauthorization of IDEA. RtI was developed as a general education initiative that could be implemented by general education teachers. RtI is an attempt to rectify a problem in the old system, in which we essentially had two educational systems: regular education for “regular” students and special education for students with disabilities. Special education is a service delivery system, not a physical location, but people thought of special education as a place—typically a portable building behind the school.

One of the problems with this system was that the children who were sent to the little building in the back progressed poorly: Special education teachers are experts in instructional strategies, not in curricula. History teachers are the experts in history curricula, science teachers are the experts in science curricula, English teachers in English. And as for math . . . let’s not even go there. Students in special education suffered because their special education teachers were not experts in the variety of curricula for which middle school and high school teachers are responsible.

Another problem with that system was that many students who were struggling but not identified as eligible for special education were left in general education classes to fail without special support. Many of those students had learning disabilities but had not been diagnosed. Under the old system, we had to document that the student had a severe discrepancy between his or her IQ and classroom achievement before we could give the student help. This was called the wait to fail approach. We didn’t intervene until the student was at least two years behind his or her peers. We needed to intervene sooner.

A third problem was that so many children of color and from various ethnic groups were being identified as eligible for special education. They were, and continue to be, proportionally overrepresented in special education. Those students who were inappropriately placed simply needed good, research-based teaching. RtI helps ensure that such students get the help they need in the general education classroom.

RtI means providing research-based instruction that accommodates the student’s needs and then assessing the student to determine whether she or he has benefitted from the instruction (i.e., mastered the knowledge or skill). The assessment is ongoing, and the teacher scrutinizes the results. The process of assessment and close examination is called progress monitoring. Progress monitoring is conducted through curriculum-based measurement (CBM), which we shall address shortly.

Based upon the progress monitoring, the teacher determines whether the student doesn’t know the material—has a skill or knowledge deficit—or knows the material and simply chooses not to apply it—has a performance deficit. If the student has a skill or
knowledge deficit and is responding to instruction, then the teacher continues on with that type of instruction. If the student has a skill or knowledge deficit and is not responding to the teacher’s instruction, the teacher tweaks that instruction until something works. If the student has a performance deficit, rather than a skill or knowledge deficit, the teacher seeks a way to motivate the student.

Curriculum Based Measurement

In Curriculum Based Measurement (CBM), the teacher provides a brief probe at least once each week. The probe, which takes from one to five minutes, is based upon the curriculum; the relationship between the curriculum and the assessment is transparent. Then the teacher graphs the student’s performance. For example, one of the Montana competencies for high school seniors is to give examples of scientific innovation challenging commonly held perceptions. Clearly, this would be a one-sentence probe directing the student to provide such examples.

One of the New Jersey high school mathematics competencies is to create and use representations to organize, record, and communicate mathematical ideas. This could consist of a probe in which the student was expected to make a table or diagram that represented a problem provided by the teacher.

Arizona’s eighth-grade content standards for reading include being able to differentiate between primary and secondary source materials. The teacher could provide a list of ten sources and then have the student circle the primary sources in a brief probe.

Whenever possible, the teacher graphs the student’s performance. Clearly, this is difficult to do when assessing higher-order thinking; however, our struggling students are generally struggling with the most basic knowledge and skills in our disciplines. Because they have not mastered the basic building blocks of our disciplines, they cannot be expected to manipulate knowledge that they lack in order to analyze, synthesize, or evaluate. They are the students who are failing mathematical problem solving in eighth grade, in part because they simply have not mastered their multiplication facts. During the years that our college interns’ field experience consisted of working with eighth and ninth graders who were in summer school for mathematics remediation, the interns were astonished and appalled to discover that the junior high students with whom they were working had not mastered the basic math facts. An intense 90 minutes a day for ten days inevitably resulted in the youngsters having mastered all of the facts that they did not know on the first day of summer school.

Likewise, the college interns discovered to their horror that the students who were in summer school for failing reading had not mastered the basic 220 Dolch sight word list: They could not read words such as birthday, children, and please. While this level of instruction is beyond what most middle school and secondary teachers are expected to provide, the example is instructive in assisting us to understand that students who are struggling often lack the most basic knowledge and skills that we assume they mastered years ago.

When we identify and assess the basic knowledge and skills that students lack, we can then graph their knowledge and skill acquisition using Microsoft Excel or some other spreadsheet program. We must be consistent in graphing only one type of content or skill on one graph: The number of math facts that a student has mastered each day or week goes on one chart; how long it takes the student to solve five problems using those facts goes on a separate chart. Similarly, the number of adjectives that a student correctly recognizes in one minute belongs on one chart, while the number of adjectives that the student uses appropriately on a five-minute writing probe belongs on a separate chart.
For more difficult performance-based assessments, carefully constructed rubrics can allow the teacher to assess a wide variety of performances. A plethora of rubrics are available free online from school districts, universities, textbook publishers, and other sources.

**RtI Tier 1**

RtI is a three-tiered approach that has been interpreted a number of ways depending on who is doing the interpreting. In general, in Tier 1 the teacher sets benchmarks (short-term instructional goals), provides research-based teaching to the entire class, and conducts progress monitoring (CBM) with the student who is struggling. Struggling students can be identified from daily performance, by examination of previous achievement scores or grades, or by screening assessments that all students take. At this point, the focus is on providing high-quality instruction for the entire class, although the teacher does provide appropriate accommodations for students who are struggling. The accommodations might include a partial-note lecture guide for students who cannot keep up with the teacher’s presentation, a study guide for students who have difficulty identifying critical from salient information in a text, or written as well as oral instructions for an assignment. At this point, the teacher is closely monitoring the performance of the struggling students using CBM.

If the student is not making satisfactory progress in the whole-group, scientifically based instructional setting, then the teacher should meet with her or his campus’s team (variously known as Campus Assistance Team, Teacher Assistance Team, Student Assistance Team, Instructional Support Team, Child Study Team, or some other similar term) that assists in generating instructional ideas and determining whether the student needs Tier 2 assistance. The students who are not making satisfactory progress after eight to ten weeks are known as *nonresponding* students because they have not responded to the scientifically based instruction.

**RtI Tier 2**

The campus team will use a problem-solving model to determine appropriate interventions and assessments to be provided to a small group of struggling students. This instruction will be more individualized (small homogeneous groups vs. whole group), more intense (of longer duration, greater frequency, more highly focused, and more closely monitored), and provided by personnel with more training in working with struggling learners than most general education teachers have. Tier 2 instruction is generally conducted for up to ten weeks.

Students who do not respond to Tier 2 instruction will move to Tier 3. Tier 3 instruction varies by state and even by district. Tier 3 may consist of 1:1 intensive instruction outside of special education. Tier 3 may mean that the campus team refers the student for a multidisciplinary evaluation for special education placement. In a few states, Tier 3 may mean that the student is immediately enrolled in special education without a multidisciplinary assessment. States that use this option do not label students as *learning disabled, behavior disordered*, and so on. They label the students as *eligible for special education*.

**Universal Design for Learning**

*Universal Design* is a term originally coined by architects to describe accommodations to facilities that could serve people who use wheelchairs: ramps, wide doorways, kitchen
counters that could be raised and lowered. The idea was to build structures—rather than retrofit them—that would serve all people throughout their life span in order to address the requirements of civil rights legislation, such as Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Soon, engineers and product designers joined the movement, and they began designing disability-friendly products such as lever handles for doors, thick handles on cooking utensils, and cabinets with pullout shelves—all accommodations that enable people with physical limitations to live independently. The principles of Universal Design are that accommodations and products must

- Be equitable
- Be flexible
- Be simple and intuitive
- Have a wide tolerance for error
- Require low physical effort
- Provide adequate space and accommodate a variety of sizes
- Make information accessible to people who have sensory difficulties such as low vision or hearing

In 1984, several disability researchers came together to extend the concept of Universal Design to education. They established the nonprofit Center for Applied Special Technology (CAST) to investigate how technology could be exploited to improve education for all students: both those with and without disabilities. They named their approach Universal Design for Learning (UDL) and have won a plethora of awards for their contribution to education.

Like the Universal Design of architecture and engineering, UDL is based upon a set of guidelines:

- Provide multiple means of representation
- Provide for multiple means of student expression
- Provide for multiple means of student engagement

**Multiple Means of Representation**

Providing *Multiple Means of Representation* means presenting information to students in more than one way. Many of us know a Mr. Jones, whose entire teaching repertoire consists of standing in front of the class and lecturing while students are expected to take notes, sinking or swimming on their own when they need someone to point them to shore. Multiple means of representation means that Mr. Jones provides both auditory and visual input: He incorporates graphic organizers and other visual material into his lectures. He provides students with assistance in understanding concepts through providing graphic organizers and defining vocabulary. Finally, he provides students with assistance in comprehending material through highlighting critical elements and teaching them mnemonic strategies. These are simply a few examples of Multiple Means of Representation.

**Multiple Means of Expression**

We all know a Mrs. Barr, who only allows students to show what they know about history through writing the five-paragraph essay. Providing *Multiple Means of Expression* means that Mrs. Barr would provide options for physical action: She would allow
students who could not write to record their answers in digital form, or she would allow students to create storyboards to demonstrate their knowledge. She would have them set learning goals and help them learn to progress toward their goals.

**Multiple Means of Engagement**

Finally, we all know a Mr. Adams, who expects his students to complete their biology homework simply because they should. Providing *Multiple Means of Engagement* means that he will find ways of showing his students how biology is socially relevant to them, allowing them to collaborate to exploit adolescents’ natural urge to engage socially, and providing feedback that encourages persistence.

The CAST Web site, www.cast.org, explains the principles of UDL in great detail and even has a password-protected site where teachers can create and save their own UDL lesson plans.

**THE PURPOSE OF THIS BOOK**

The purpose of this book is to provide middle school and high school teachers with scientifically based UDL strategies for whole-class instruction that marry well with the types of teaching strategies that middle and high school teachers regularly employ. Many of the strategies in this book take little time or effort to incorporate into a good teacher’s repertoire. Some take less than a minute of class time but yield significant results. Others are incorporated into lessons and provide a slightly different but important change in delivery; these strategies may take more time when they are initially developed, but will save time in subsequent lessons. They will result in improved learning for all students, not only those who are struggling. But they will make critical differences for our struggling learners.

To assist the reader, the book provides samples of reproducible graphic organizers and other forms in the Appendices.

**A NOTE ABOUT PEOPLE FIRST LANGUAGE**

Words are important. The words that we use to define people affect both the people we define and ourselves. Therefore, throughout this book, we will usually use the term students *with ELN*. ELN stands for *Exceptional Learning Needs*; ELN is the currently preferred term in a majority of the disability community when speaking of students with various disabilities who are grouped together, such as the students about whom this book is written: students with learning disabilities, mild intellectual disabilities (formerly known as *mental retardation*), and mild behavior disorders. We preface the letters ENL with the words students *who have*.

We derive our term from *People First Language*. People First Language puts the humanness before the disability and never uses a disability term as a substitute for a noun referring to a human. For example, we do not say the learning disabled; we say a student *who has a learning disability*. Calling people the learning disabled (or the retarded, or the behavior disordered, etc.) dehumanizes them and makes them seem monolithic.

I have a brain injury (and resulting neurological problems) from a brain tumor and the surgery to remove it. However, I am far more than simply the brain injured or the
neurologically impaired. Having a brain injury is only one part of who I am. I am a teacher, a writer, a reader, a scholar, a Hardin Distinguished Professor, a staunch Episcopalian, a dog devotee, a classical music listener, a defender of the First Amendment, an advocate of people with autism and other developmental disabilities, a Tolkien lover, a Harry Potter fanatic, an amateur chef, a senior citizen, a loving wife, a good sister, a devoted cousin, and as Professor Dumbledore said of Cedric Diggory at his memorial service, a fierce friend.

I am not a monolith; I’m much more than simply the brain injured or the neurologically impaired. Do my brain injury and neurological impairments affect my life? You betcha; every day I gird my loins and do battle with them. But they are only one part of who I am. If, for some reason, you must to think of me in terms of my disability, then think of me as a person with a brain injury, or a person with a neurological impairment. Not the brain injured or the neurologically impaired.

Note that not everyone in the disability community prefers People First Language. The term is not preferred by people in the deaf and blind communities. The national organizations representing those individuals typically prefer to be called blind people or deaf people. In addition, many people with autism, primarily people with the Asperger’s form of autism, prefer to be called autistics.

However, the majority of students for whom this book was written have learning disabilities, mild intellectual disabilities, or mild behavior disorders. They are the adolescents and young adults whom we have taught and loved for so many years. Therefore, we will generally use the term students who have ELN. Occasionally we will use the term students with learning disabilities when research has investigated exclusively students with that disability and we think that is the best term for clarification in this book. But we’d rather hit our thumb with a hammer than use the terms the learning disabled, the retarded, or the behavior disordered. After all, we don’t want to be called the brain injured either.