The development of the Common Core State Standards (CCSS) was motivated, in part, by the challenges that a mobile society creates for K–12 students. Many students move from one school to another during their school careers, and some move many times. When they move within the same state, they are held to the same content standards—that the state has set for all of its students, including students with disabilities. But when they move from one state to another, students are taught to different content standards and may be held to different levels of achievement standards as well. Further, they often end up taking different assessments.

The CCSS also were developed to address the need for a common set of content standards that would be consistent with the requirements of a global society. The developers of the CCSS recognized that students needed to leave high school ready for college and careers.

These goals are consistent with the goals that educators have for students with disabilities who, like other students, need to leave high school with the ability to use technology, understand a variety of perspectives, and communicate effectively (see box above). Students with disabilities likely will need additional supports so that they have the opportunity to learn and meet the same standards. Educators are central to ensuring that this promise is fulfilled—and that the potential perils associated with the CCSS are avoided.

The Promise

Included from the beginning!

Unlike many past educational efforts, the CCSS seem to have been developed with all students in mind. There are several indications that this was the case. For example, special education professionals participated in the development of the CCSS and in verification teams. In addition, a document called “Application to Students with Disabilities” on the CCSS Web site addresses how the CCSS apply to students with disabilities and how to ensure that these students have access to the CCSS. For example, this document states that “Students with disabilities . . . must be challenged to excel within the general curriculum and be prepared for success in their postschool lives, including college and/or careers. . . Therefore, how these high standards are taught and assessed is of the utmost importance in reaching this diverse group of students” (p. 1).

Application to Students with Disabilities is available at www.corestandards.org/assets/application-to-students-with-disabilities.pdf.
Summer offers a great opportunity to reflect on what we’ve accomplished and what we face. One recent decision that carries enormous significance for the future of education is the adoption of the Common Core State Standards (CCSS). California joined that initiative because of its promise to be a unified, national effort to secure consistent academic rigor for our K–12 school system. The importance of a strong system of academics that gives all students the opportunity to realize their full potential has always been part of both state and national agendas. The idea of national educational consistency is relatively new. However, within just the past two decades our world has seen accelerated technological innovations and global interdependencies that require us as a nation to embrace rigorous standards that, to ensure optimal benefit for every student, are the same across all 50 states. If our country is to remain competitive and if our children are to realize promising futures, we must be certain that our schools prepare all students for postsecondary education and employment. This is the idea of the CCSS. It is not just a good idea; it is a necessary one.

Our hope all along has been that, when we implement the CCSS, students with disabilities will have the supports, services, accommodations, and modifications they need to realize the same educational benefit that all other students receive. What makes the CCSS potentially unique is the chance it presents to build each of these components into the standards and accompanying curriculum and assessments from the very beginning, as was the promise—and not added as an afterthought. (Thurlow, page 1.)

Some educators of good will have argued for field-testing the CCSS before their wholesale launch. I suggest, however, that we know what to teach, and we know how to help students learn. The real challenge is lodged in those detailed cracks that only appear during the actual, large-scale movement forward. No preliminary “testing the waters” can prepare us for the task of actually implementing the standards. And we are preparing. We know that districts are quickly ramping up supplemental materials and curriculum to address the CCSS in the classroom prior to the first year of the new assessment system (2014–2015). Many of these districts (page 16) are showing commitment, energy, and careful thought in how they’re preparing their teachers and programs to embrace and benefit from the new standards. Since assessment is a central part of this new initiative, key California stakeholders have asked to join the National Collaborative and State Consortium to assist and advise in the development of a CCSS assessment for students with severe cognitive disabilities and to work in concert with the Smarter Balanced Assessment Consortia assessment that is being designed for all other students. The assessment system that California will ultimately use for this group of students is uncertain; it is one of the important decisions that still needs to be made (Donavan, page 5).

We have much cause for optimism as we move forward. Our schools have come a long way in realizing true educational benefit for students with disabilities (Donavan, page 3). Research continues to reveal what is required of and for healthy brain development so that all children can meet rigorous standards and realize their full potential (Fish and Brault, page 9). Meanwhile, the California Advisory Commission on Special Education (see insert) continues to be diligent in championing legislation and programs that benefit students. And the Special Education Division remains firmly committed to ensuring that the CCSS initiative, along with all of its attendant pieces, is crafted in a way that supports and benefits all students with disabilities.
O\nver the past 37 years, special education has taken large strides away from being a parallel system that operated outside of general education and toward a more inclusive system that incorporates a collaborative approach to educating all students. This progressive journey can be attributed to five monumental changes that have dramatically improved the teaching-learning process and raised the expected outcomes for students with disabilities. The journey begins with legislation, progresses through important new and reauthorized law, and is currently gaining momentum through the Common Core State Standards.

**Legislative Context**

The first monumental change occurred with the passage of the Education for All Handicapped Children Act (EAHCA) of 1975, which mandated that schools provide special education services to eligible students and is considered to be the first, large-scale effort to include students with disabilities in the public education system (Brown, 1983). But, for the most part, there was little if any direction or expected educational outcomes, particularly for students with significant disabilities. During the 1980s, thanks to the pioneering work of Lou Brown and many others, functional domains were developed that provided educators with much-needed guidance on how to teach life skills and other functional skills that focused on independence and self-sufficiency for students with significant disabilities (Brown, 1983; Brown, 1989). Through the 1990s special education was based on the subjective interpretation of what constituted a free and appropriate public education (FAPE). While there certainly were random acts of improvement during this time, there was little, if any, consistency in instructional methodologies or assessment at the national, state, and local levels.

Then in 1997 the EAHCA was reauthorized as the Individuals with Disabilities Education Act (IDEA), which stated that students with disabilities should have access to the general education curriculum. That reauthorization occurred one year prior to the development and implementation of the California Content Standards and the California Standards Test (CST), which increased consistency in instruction, learning outcomes, and assessment across the state and required higher expectations for students with disabilities. Students with mild-to-moderate disabilities participated in the CST with and without accommodations and/or modifications. Students with significant disabilities were not required to take the CST. California’s statewide assessment system, the Academic Performance Index (API), was used to monitor student progress toward meeting the standards. One of the benefits of the API is that it is a growth model and is similar to the way special educators measure the academic achievement of students with mild-to-moderate disabilities.

The passage of the No Child Left Behind Act (NCLB) in 2001 was the third monumental change in special education. Schools were now held accountable for the academic outcomes of all significant subgroups of students, including those who were socio-economically disadvantaged, English learners, and identified with a disability. NCLB included a required federal assessment system known as Adequate Yearly Progress (AYP) to measure student outcomes at the school, district, and state levels. While many aspects of NCLB have resulted in positive changes for students, the goal of having all students become “proficient” by 2014 has resulted in many challenges. Complicating the near impossibility of this goal are the punitive measures that place schools and districts into Program Improvement (PI) for failing to make AYP. As a result, significant subgroups, including students receiving special education services, often find themselves being blamed for a school and/or district’s PI status. Ironically, a school and/or district can show significant growth in API scores but still not meet the AYP requirement and end up in Program Improvement.

In 2004, the Individuals with Disabilities Education Act was once again reauthorized with an even greater emphasis on access to the core curriculum for students with disabilities and the additional requirement to use research-based practices. This fourth monumental change in special education solidified the need for schools and districts to continue their focus on improving outcomes for all students. While the
focus in special education had been on improving outcomes for students with mild-to-moderate disabilities, California had begun expanding this focus in 2003 with the development and implementation of the California Alternate Performance Assessment (CAPA), a consistent, statewide assessment system for students with significant cognitive impairments. These students comprise approximately 1 percent of all students eligible for special education. The CAPA measures students’ skills, however, not their knowledge or mastery of academic content. The development of the CAPA was followed in 2007 by the development and implementation of the California Modified Assessment (CMA), which provides the same content as the CST, but with fewer words and three rather than four choices for an answer. The CMA was intended to bridge the gap between the CST and the CAPA.

These four monumental changes have greatly improved the way we educate and assess students with disabilities. They do not, however, completely cater and assess students with disabilities. The fifth monumental change in special education is underway with the development and implementation of the Common Core State Standards (CCSS) and the new assessment system that will be used to monitor student progress toward meeting those standards. The aforementioned changes provide a solid foundation for what is likely to be an entirely new and more inclusive method of teaching and assessing students with disabilities. The shift from “all students proficient by 2014” under NCLB to the College and Career Readiness (CCR) theme of the Common Core State Standards

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The Smarter Balanced Assessment Consortium
An integral part of the CCSS is the Smarter Balanced Assessment Consortium (SBAC), which is currently developing assessments that will replace both the CST and CMA. The SBAC work has been adopted for use in California as well as in 26 other states.

All students {will} have the opportunity to learn this valued content and show what they know and can do.

Directly aligned to the CCSS, the proposed Smarter Balanced assessments are computer adaptive and adjust to each student’s skill level based on his or her response to each test item. These assessments will include a summative or end-of-year test, along with interim assessments and the option of formative assessments to help shape and direct instruction throughout the school year. Another key feature of the Smarter Balanced assessments is that students, teachers, and parents will receive the results of these assessments in a timely manner that not only will help inform instruction but will direct the need for any remediation.

Many of the separate accommodations and modifications that were used in the administration of the CST and CMA are being built into the Smarter Balanced assessments. A computer adaptive feature—and the use of technology in general—will enable an array of such options as enlarged print, highlighting of reading passages, use of a scribe, and use of a calculator to occur directly at each computer. According to Stanley Rabinowitz, Director of Assessment and Standards Development Services and of the Assessment and Accountability Comprehensive Center at WestEd, “To achieve the goal that all students leave high school ready for college and career, Smarter Balanced will ensure that assessment and instruction embody the Common Core State Standards and that all students, regardless of disability, language, or subgroup status, have the opportunity to learn this valued content and show what they know and can do” (WestEd, 2012). WestEd is the project management partner for the multistate implementation of the Smarter Balanced assessments.
Alternative Assessment
Numerous alternative assessment options exist for evaluating the knowledge and mastery of students with significant cognitive disabilities. While California has yet to adopt one that would serve as an alternative assessment to those of Smarter Balanced, the state is currently looking closely at two alternative assessment consortia, Dynamic Learning Maps (DLM) and the National Center and State Collaborative (NCSC).

Dynamic Learning Maps can be found at http://dynamiclearningmaps.org/. The National Center and State Collaborative is at www.ncscpartners.org/.

The instruments from these consortia were developed to assess the content of the CCSS and college and career readiness, and they all include solid academic content foundations and evidence-based design (Sheinker and Thurlow, 2012). Both Dynamic Learning Maps and the National Center and State Collaborative offer comprehensive assessments that use computer-adaptive technology that will allow for a wide range of student needs. For example, students can access the assessment via augmentative and alternative communication (AAC). Or the assessment can be administered orally or in braille. Unlike the CAPA, these assessments are based on content knowledge of the CCSS, which will lead to higher expectations and improved results for students with significant disabilities. The National Center and State Collaborative is considered the more comprehensive of the two and has been recommended for use in California by many groups, including the Special Education Administrators of County Offices (SEACO) and the California County Superintendents Educational Services Association (CCSESA).

Improved Outcomes
We know that higher expectations result in improved student outcomes. A recent study of four California school districts that dramatically improved the academic performance of students with mild-to-moderate disabilities showed that all four districts emphasized “inclusion and access to the curriculum . . . [and the] use of student assessment data to inform decision-making” (Huberman and Parrish, p.5).

Lessons from California Districts Showing Unusually Strong Academic Performance for Students in Special Education by Huberman and Parrish is available at www.schoolsmovingup.net/smu/view/rs/25889.

Other examples of impressive gains in student performance point to the importance of raising expectations and providing rigorous and direct instruction to all students. Recent articles in The Special EDge have outlined the impressive academic gains made in the Dixon, Sanger, and Val Verde Unified School Districts (Summer 2011; Spring 2012).

Numerous other studies show how the same strategies can also lead to dramatic improvements in the academic performance of students with significant disabilities. These students can be taught and assessed on academic content by embedding that content into functional skills.


Dr. Cindy Hoffman, Reading Specialist for the Greater Anaheim SELPA, has been doing this for years. When asked about the CCSS and the assessment of the academic progress of students with significant disabilities, Dr. Hoffman said, “We can and should be teaching literacy and numeracy to all students.”

Schools and districts that improve outcomes for all students, including those with disabilities, have many things in common. But one of their key ingredients is rigor. We know that rigor equates to high expectations and accountability for both teaching and learning. In her book, With Rigor for All: Meeting Common Core Standards for Reading Literature, Carol Jago (2011) states that “the Common Core and other excellent language arts standards . . . are based upon a belief . . . that all children are capable of ‘critical and higher-order thinking’”(p. 32).


As we implement the CCSS and move our emphasis in special education from compliance to outcomes, “we now have the possibility that the objectives for each individual student will not only be addressed within a single system of delivery but also be addressed with individual accountability.” (Tucker, 2011, p. 7).

Conclusion
As our nation’s economy becomes increasingly part of the global economy, our instructional practices will continue to evolve in an ongoing effort to improve outcomes for all students, including students with disabilities. The good news is that our educators are already familiar with many of the strategies they will need to successfully transition to the CCSS, Smarter Balanced assessments, and alternative assessments. One example is Universal Design for Learning (UDL), an instructional method that allows for multiple strategies to deliver lessons as well as...
multiple methods for students to access and demonstrate mastery of the content delivered in those lessons.

Information on UDL
is available from the National Center on Universal Design for Learning at www.udlcenter.org.

The monumental changes in special education throughout the past decades have established a foundation that is more than capable of supporting the progressive changes that lie ahead. The development of the CCSS, SBAC, and alternative assessments has now raised the educational bar higher than ever before—and that is a very good thing for all students. 

References
Brown, L., et al. (1983). Opportunities available when severely handicapped students attend chronological age appropriate regular schools.” Journal of the Association for Persons with Severe Handicaps, (14)1, 8–12.

The Promise
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In the English language arts (ELA) standards document, it is noted that the standards allow for appropriate accommodations. It goes on to state: "For example, for students with disabilities, reading should allow for the use of braille, screen-reader technology, or other assistive devices, while writing should include the use of a scribe, computer, or speech to text technology. In a similar vein, speaking and listening should be interpreted broadly to include sign language.” (CCSS/ELA Standards, p. 6).

All of the CCSS are available at www.corestandards.org.

These are important statements, not only because they show that the CCSS developers considered all students, but also because they open up the possibility of continued discussions about access to the curriculum and about accessible assessments that measure what students really know and are able to do. Access is critical if students are going to succeed in each grade and leave school ready for college or a career.

College and career readiness is appropriate for students with disabilities! What does it mean to be college and career ready for students with disabilities? In large part it means the same thing as it does for other students. David Conley at the University of Oregon identified four critical dimensions of college readiness: (1) cognitive strategies, which include such higher-order thinking skills as problem formation, interpretation, and analysis; (2) content knowledge, which includes the concepts and knowledge in the disciplines; (3) skills for learning, such as time management, persistence, metacognition, goal setting, and self awareness; and (4) transition knowledge and skills, which include knowledge and awareness about applying for admissions and financial aid, interacting with higher education faculty, and navigating college systems.

Help in Transitioning to College and Career

What Does “College and Career Ready” Mean for Students with Significant Cognitive Disabilities?
is at www.naadpartners.org/publications/CareerCollegeReadiness.pdf.

Fulfilling the Promise

Focus on curriculum and teaching methods. For students with disabilities to be able to meet the standards described in the CCSS, they will need a focused curriculum, and teachers will need instructional methods that address the students’ individual needs. Recent studies of districts that have been successful with all of their students, including those with disabilities, confirm the need for educators to focus their efforts and target instruction in order to reach agreed-upon goals.

Challenging Change: How Schools and Districts Are Improving the Performance of Special Education Students
from the National Center for Learning Disabilities is available at www.ncld.org/on-capitol-hill/policy-related-publications/challenging-change.

This kind of focus is supported by all of those critical skills that special educators implement on a regular basis—for example, checking on the implementation of effective strategies, using and keeping track of formative indicators of student performance, and ensuring that appropriate access to the general education classroom and curriculum takes place.

Redefining College Readiness

Several individuals have identified how these critical dimensions apply to students with disabilities, including students who have significant cognitive disabilities.
This focusing of curriculum and instruction is consistent with the assumptions and principles of response to intervention (RtI), which targets and differentiates instruction and support based on students' needs as it monitors their progress. Strategies may differ across the tiers of intervention, but all are focused on ensuring that students learn desired knowledge and skills.

The CCSS help to ensure that those engaged in RtI are clear about what students are expected to know, understand, and be able to do. They help to identify the skills and knowledge that students need to attain in each grade. The CCSS also help to define the progression across the grades so that students do not find themselves in a grade without the knowledge and skills they need because someone in an earlier grade decided to skip a skill, not knowing of its foundational importance for a subsequent grade.

Helping parents (and students) know what is expected. Another promise of CCSS is that parents will have a clear and consistent understanding of what their children are expected to know and be able to do. With this understanding, parents can take advantage of resources that schools, districts, and states provide to them about the CCSS (see the resources on pages 14–15 of this issue). In addition, when students are clear about what is expected of them, they have a greater chance of reaching their academic goals—and of leaving high school ready for college or a career.

The Peril of the CCSS

A great deal has to happen to realize the promise of the CCSS. And because of that, there is peril associated with these standards. Some of the greatest challenges lie in areas that have been challenges before for students with disabilities.

Low expectations. The CCSS are rigorous and complex; they are high standards that target what has to be learned at each grade so that students leave the K–12 system ready for a career or for college. In the past, low expectations for students with disabilities have reduced the content to which these students have been exposed. There is, however, a great deal that educators can do to avoid an attitude of low expectations. Rather than assume that students are not able to attain desired knowledge and skills, teachers can move forward with “the least danger assumption”—one that expects high performance.

Access to assessments will be just as important as access to the curriculum. With the CCSS, states potentially are able to share assessments because they all can be based on the same standards. At this point, five consortia of states are developing assessments, all based on the CCSS. California is part of the Smarter Balanced Assessment Consortium (SBAC; also see the article on page 3), which is developing a system of interim and summative assessments (see page 8 for highlights). It is critical that the developers of the common assessments think from the beginning about all students who will participate in their assessment systems and that they include in their consortia—and take advantage of the expertise of—educators who know and work with students with disabilities.

Steps for Educators to Take

To ensure that the promise of the CCSS is realized, educators will need to take a number of steps. Some of the big things to do and keep in mind are:

1. Learn the CCSS! Find resources that provide information about the CCSS. Study materials from professional associations and parent groups. Look at the CCSS Web site for materials.
skills. Teachers and parents of children with disabilities and children from high-risk families can learn how to systematically and intentionally teach and support EF skills from birth. However, all teachers and parents can better support all children at every age by knowing about and implementing strategies to enhance the development of EF skills.

Parents and educators can begin by looking at how they interact with children, by making sure the environments they create are caring and supportive, and by modeling—in what they say and what they do—what executive function looks and sounds like. Training that helps adults develop and enhance environments that foster EF skills is an important step as well.

A focus on executive function, built upon a working knowledge of how emotional development in young children shapes their cognitive development, can serve as a powerful tool to prepare children to come to school ready to learn and able to tackle rigorous standards.

**The National Center for Learning Disabilities**


**Information on ADHD and Executive Function**


**The Promise**

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that are being developed to support educators and parents.

2. **Participate** in professional development. Take part in professional development activities about the CCSS whenever they are offered. And, if you are a special educator, be sure that you participate in the same activities as your general education peers. Shared knowledge is essential to ensuring that everyone has the CCSS in mind as they educate students with disabilities.

3. **Adopt** successful approaches. Focus on evidenced-based, successful practices for educating students with disabilities in line with the CCSS. These practices should be aligned throughout the system and must be practiced by administrators and educators alike.

4. **Provide** access to the general curriculum. Constantly think about what it means to have access to the general curriculum. This entails thinking about how to ensure that students with disabilities have access that meets their individual needs. It also includes thinking about the design of materials, how they are presented, and how the student responds. And it means thinking in these ways not just about instructional materials but about assessments as well.

5. **Monitor** student progress and adjust. Continuously check on how students are doing and the progress they are making so that materials and procedures can be adjusted as needed. This practice should be applied for all students, but it is critical for students with disabilities.

These are some of the things that need to be undertaken so that students with disabilities can realize the potential promise of the CCSS. The time is right to ensure that each and every student with a disability can reach the end of his or her high school years with the knowledge and skills needed to be successful in the next phase of life, be it postsecondary education or a job.

**References**


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**The Center on Instruction**

offers school administrators and teachers numerous evidence-based resources for successful instructional practices: [www.centeroninstruction.org/](http://www.centeroninstruction.org/).

**Highlights of the Smarter Balanced Assessment Consortium**

- 27 state members, 21 of which are Governing States and six of which are Advisory States (California is a Governing State)
- Two optional interim assessments (which include computer adaptive assessments and performance tasks)
- Summative assessment in the last 12 weeks of the year (which includes performance tasks in reading, writing, and math, as well as a computer adaptive assessment with a re-take option)
- Digital clearinghouse of formative tools, processes, and exemplars; released items and tasks; model curriculum units; educator training; professional development tools and resources; interactive reporting system; scorer training modules; teacher collaboration tools

Executive Function and School Success

By Laura Fish, Senior Program Specialist, and Linda Brault, Senior Program Associate, both at the WestEd Center for Child and Family Studies

It’s free-play time at the Lynden Child Development Center. Four children cluster together as they have every day this week. Melanie, age 5, calls out excitedly to the group, “Hey, guys, let’s play family again!” Taking charge, she points to the others in turn and says, “You be the daddy, you be the sister, and you’re the baby.” Four-year-old Tess pauses—and then decides that being the daddy will be fun because this means she’ll get the big cell phone. Digitu, also 4, thinks back to yesterday’s play and agrees to her role as “sister.” “Ok, but I get the silver necklace this time!” Melanie looks at the necklace and agrees because she wants the gold one anyway. Samantha, age 3, walks toward one of the baskets and picks up a cell phone. “Noooo, Samantha,” says Tess. “That is for mommies only! Babies don’t talk on the phone.” Tess takes the phone and gives it to Melanie. Samantha goes back to the closet, gets her doll as she did yesterday, and puts it in the stroller.

The children begin to set the rules of engagement and define their roles. Experience from their previous family-play episodes moves the action forward. This cumulative set of activities constitutes typical dramatic play in a preschool classroom.

Throughout their play, members of this “family” will make decisions (“Should we eat rice or pasta?”), solve problems (“We only have three bowls and four people! Give baby a plate instead.”), and resolve conflicts (“Here baby, you can have the blue chair. I’ll use it next time. Don’t cry!”), all of which demonstrate complex social politics—and provide children with the opportunity to practice and refine their skills in executive functioning.

What Is Executive Functioning?

Executive function involves the complex problem solving and critical thinking that leads to the ability to accomplish intentional goals—from playing a schoolyard game to studying nanotechnology. More specifically, executive functioning (EF) refers to the set of cognitive processes that support an individual’s capacity to engage in goal-directed behavior.

Building the Brain’s “Air Traffic Control” System: How Early Experiences Shape the Development of Executive Function

is at http://developingchild.harvard.edu/resources/reports_and_working_papers/working_papers/wp11/.

EF skills include those abilities that control behavior—such as attention, motivation, and regulation of emotion—and that guide behavior—such as planning, organizing, monitoring, reasoning, problem solving, and responding flexibly. According to the Center on the Developing Child at Harvard University (the Center at Harvard), EF is that group of skills in the brain that “helps us to focus on multiple streams of information at the same time, monitor errors, make decisions in light of available information, revise plans as necessary, and resist the urge to let frustration lead to hasty actions.”

It doesn’t take any great cognitive leap to see how integral these skills are to success in the classroom at every level, from preschool through college, and into the world of work. In fact, students will simply not be able to access the rigorous demands of the upcoming Common Core State Standards if they do not have decent EF skills. Since we now know that EF skills begin developing—or atrophy—in very early childhood, attention to them is vital from the moment a child is born.

How do these executive functioning skills work in the brain? And what do parents and teachers need to know and be able to do so that children come to school with these functions in place?

Components of EF

The neurologically based skills that make up executive function can be organized under three domains:

Working memory keeps information in mind long enough to initiate and complete tasks. Working memory helps with the planning and organizing required for such things as following rules while engaging in a task, collecting and keeping track of needed materials, following directions, solving problems with multiple steps, and creating the roles and rules involved in any kind of complex activity, from playing “house” to working quadratic equations.

Inhibitory Control—or impulse control—helps a person pause to think...
before acting. This skill is necessary to filter out distractions, delay gratification, and break habitual behaviors. It is crucial for regulating emotions and making choices about appropriate ways to express those emotions. We all need this skill to forego doing what we want to do in place of doing what we are supposed to do—essentially to be able to discern the right choices to make and the most important things to attend to in any given moment. A child, for example, uses these skills when continuing to build a block tower despite children running through the area; when waiting to eat lunch until everyone is served; when playing such games as “Red Light/Green Light” and “Simon Says”; and when, after being hit by another child, calling for help instead of hitting back, despite being very angry. Adults use these skills when they go to work rather than staying in bed after a late night, when they don’t yell at their boss for a harsh performance evaluation, and when they get up to comfort a crying child when they’d rather sleep.

Cognitive or mental flexibility is the capacity to shift gears and scan options for how to respond appropriately—both intellectually and emotionally. It is the ability to adjust to changes, revise plans, and consider something from a different perspective. This flexibility helps a person sort out competing demands, priorities, and expectations.

Cognitive flexibility supports a child’s ability to effectively manage such things as transitions, to try multiple options for conflict resolution, and to understand rules and expectations that might be situational (e.g., “In the morning we can play with water, but in the afternoon we play with the sand”; or, when a child is older, “I can swim in the pool, but only when there’s a lifeguard present.”

The three domains work in an interrelated fashion to support optimal executive functioning. For example, it takes working memory to recall that the teacher told you to put your coat and backpack in your cubby before going to the table, inhibitory control to resist the urge to throw the things on the floor and run to the table with excitement to start playing, and cognitive flexibility to follow the teacher’s expectations—when at home you do get to drop things on the floor and your mom puts them away for you. When fully integrated, skills that make up the executive functions support a person’s ability to engage in purposeful, goal-directed, problem-solving behavior by overriding impulsive thoughts and responses in order to think through possible outcomes and realize goals.

According to research from the Center at Harvard, children’s EF skills facilitate early cognitive achievement in school in the areas of reading, writing, and math. Scientists argue that EF skills “support the process (i.e., the how) of learning—focusing, remembering, planning—that enables children to effectively and efficiently master the content (i.e., the what) of learning—reading, writing, computation.”

What Happens in the Brain?

The capacity for cognitive processing is dependent upon the healthy development of several systems in the prefrontal areas of the brain, which begin to form during infancy and continue to grow and refine throughout adolescence and into early adulthood. In their book The Whole-Brain Child, Daniel Siegel and Tina Payne Bryson (2011) liken the brain to a house that contains both a downstairs and upstairs. The “downstairs” brain, which includes the limbic system and brain stem, develops first and is responsible for primary bodily functions such as breathing, heartbeat, and reflexive reactions and impulses. The fight, flight, or freeze response is seated in this part of the brain, as is emotional reactivity.

Much of the normal behavior seen in very young children comes directly from this downstairs brain: random movement from activity to activity, the inability to follow serial directions, distractibility, impulsivity, emotional outbursts, and underdeveloped empathy. The “upstairs” brain, or the cerebral cortex and its various parts, is where the brain’s executive functioning activity occurs: the ability to focus, think, plan, organize, control impulses, and regulate emotions. While this upstairs brain isn’t fully developed until a person’s mid-twenties, evidence of executive functioning appears in early childhood.

As children develop, they begin to attend to tasks for longer periods of time; can follow multiple-step directions; and show a burgeoning capacity to stop, think, and act before grabbing a toy, running into the street, or hitting their friends. What’s more, they begin to identify, understand, express, and manage their emotions in appropriate ways—evidence that the upstairs brain is becoming integrated with the downstairs brain. Siegel and Bryson call this process “vertical integration,” as the “staircase in the mind” connects the downstairs brain, which developed early, with the upstairs brain, which is still under construction. This vertical integration allows children to gradu-
ally and progressively engage in more intentional, thoughtful, and controlled ways by regulating their emotions, choosing appropriate behaviors, and using logic and reasoning to initiate, plan, organize, and carry out tasks.

While a child’s genetic makeup establishes the potential and capacity for brain development and integration, the child’s experiences are what affect the likelihood that this potential will be realized—and that a child will be able to successfully tackle a rigorous academic curriculum.

How Does Executive Function Develop?

The early building blocks of EF skills are acquired as infants engage in rudimentary planning and problem solving, which at first are largely grounded in meeting immediate needs: “If I cry, they come feed me [or hold me or change my diaper].” Responding to infants in these most basic ways helps them to develop the belief that they matter and that it’s worth their while to engage with the world.

By age three, most children begin more complex problem solving, such as “the square block goes here, the round one goes there.” This requires working memory (holding two rules in mind simultaneously), inhibitory control (resisting distraction and any strong emotional response in order to complete the task), and cognitive flexibility (shifting attention from one rule to the other and trying different solutions until one works to complete the task). Many older preschoolers begin to show strengthened inhibition in the face of strong temptations (e.g., “I really want to kick the ball now, but I’ll wait my turn”), and cognitive flexibility as demands change (e.g., “Yesterday I played with all the trucks, but today other children want to play”). It is important to note that the ability to regulate emotions is being strengthened during this time as well, supporting optimal functioning in all three domains as children begin to use rational thought to overcome emotional reactivity.

What Supports the Development of EF?

Young children develop and refine EF skills in cooperative play: they make plans to organize activities, create rules and roles for the players, organize the materials needed, adjust rules and ideas to support the progress of the play, solve problems, resolve conflicts, and regulate their emotions. Those building blocks for initiating, planning, organizing, focusing, and problem solving (the “how”) that are so necessary for success in school-age academics (the “what”) begin to take shape in play in early childhood.

Make-believe play in particular “is such a powerful tool for building self-discipline,” according to researcher Laura Berk, “because during make-believe, children engage in what’s called private speech: They talk to themselves about what they are going to do and how they are going to do it. . . . This type of self-regulating language. . . has been shown in many studies to be predictive of executive functions.”

“Old Fashioned Play Builds Serious Skills”


We also know that a safe, supportive, enriching environment with responsive and caring adults gives children the best chance for optimal EF development. Research from the Center at Harvard points to a healthy “environment of relationships” as foundational for executive functioning to develop.

Siegel and Bryson define a quality relationship as one in which engaged adults do three things for and with children:
1. They ask children open-ended questions.
2. They listen to and help children tell their stories.
3. They consider children’s ideas and validate their feelings.

Recent studies show that curricula that enhance social and emotional learning also potentially can strengthen executive functioning. Two studies found that classroom-level interventions that promote social and emotional competence in preschool for all children—universal interventions—such as those mentioned above also produced improvements in young children’s EF skills and in their engagement in learning (Bierman, 2010).

Children with disabilities typically benefit from universal interventions. They also sometimes need individualized supports. Special educators and parents of children with disabilities already use many of the strategies that help children improve EF: breaking directions down into steps; creating individualized, visual mini-schedules; using visual cues, peer buddies, and first-then cues; and taking advantage of targeted supports for identifying, expressing, and managing emotions.

Strategies for Teaching Executive Function

are at www.bridges4kids.org/articles/8-08/CEC8-08.html.

Scaffolding children’s entry into play and providing support during play constitute crucial opportunities for children to practice EF skills with their peers. The key is to link these strategies to the EF functions through acknowledgments: for example, “You were able to wait for your turn after reviewing the schedule,” and “You washed your hands, then came to snack. You followed directions.” Adjusted for age and situation, these kinds of acknowledgments are helpful to all of us.

Information on Scaffolding

can be found at the What Works Clearinghouse:

Given research findings, the Council for Exceptional Children (2011) is calling for targeted instruction in EF strategies for children with disabilities, which includes creating structured play environments that have predictable...
with disabilities, are taught.
• Individualized education program (IEP) goals will change to reflect the Common Core.

Assessments
The educators agree that students with disabilities will need extra support to master the curriculum and that assessments are the way to pinpoint those needs. The CORE districts are working this summer to develop a set of formative assessment modules that will be aligned with the new Common Core summative test. The modules will replace multiple choice questions with questions requiring short written answers.

Why start with assessment rather than curriculum?
“We’re starting at the end, asking, ‘What would we expect students to know and learn?’ And ‘How can we measure it?’” says Ben Sanders, CORE’s director of standards, assessment, and instruction. “If we know where we are going, we can put our minds together to figure out how to get there.” The assessments, which will be piloted this fall, will show “what adjustments to make for individual students to get them to the next level,” Sanders says.

It is assessments that “will drive instructional methodology as we move away from discrete tasks to conceptual understanding,” says Olivine Roberts, chief academic officer in the Sacramento Unified School District.

Curriculum
The same level of rigor will be required of all students, “but the Common Core allows for slowing down, deconstructing,” says Parismo Shahidi, director of special education in Long Beach. “As we are learning about the new standards, owning them, deconstructing them, we will take them to the level of the student.”

To promote differentiation, San Francisco has trained more than 700 teachers, including special education teachers, in benchmark assessments that allow them to know the reading and comprehension levels of every student and determine exactly where struggling students need support. Most students with IEPs have learning disabilities, and most of those students can access the core curriculum, says San Francisco’s Shepard. “General education teachers needed to differentiate—with small reading groups, for example—so the students can stay in the classroom.” And, she says, “All struggling students need to be reminded of what they’ve learned. Rigor is not just what they know but how they are able use what they know, write what they know.”

Students with significant disabilities will see changes, too. “We are also focusing on rigor in our special day classes,” says Becky Bryant, director of special education for the Sacramento City schools. “We’re beginning to work with our teachers so they learn how to incorporate higher-order thinking skills” in their lessons. “We can teach critical thinking strategies to children at an early age and give them the tools to work with the curriculum. We might hear from teachers that our kids can’t do this, but school is about teaching students to think. Our students just have to add a few more steps along the way, like auditory or visual supports.”

Shahidi agrees. “When we look at the progress of students [in special education] in California, if the focus changes from compliance to how well students are thinking, we will have hit the jackpot,” she says, referring to a long-desired change in the way students with disabilities are served.

Changes are already underway in some districts. “We are working toward the transition by layering on instructional strategies that support the Common Core,” says Pamela Seki, director of curriculum, instruction, and professional development in Long Beach. “And we’re starting to look at our basic texts and ask what supports the standards.”

Teacher Training
“The national standards will tell you what the student needs to know; we need to focus on how the teacher is going to put that into practice,” says Shepard. “Special education teachers have the same challenges as all teachers,” says Elizabeth Blanco, assistant superintendent for special education in San Francisco, where 40 special education administrators participated in an “Entry to the Core Curriculum” program. That’s the first of three modules that a group of teachers on special assignment has created over the past three years. This summer 180 teachers, including special education teachers, will “develop curriculum maps and lesson plans—how do you actually teach the core,” Shepard says.

In Sacramento, teachers are not receiving traditional training but rather are participating in “professional learning using a collaborative inquiry-based methodology,” says Olivine Roberts. “In order for teachers to learn the standards, they have to do the standards. Teachers begin the process by ‘unpacking’ the standards—analyzing them to determine the expectations for student learning. They ask how students will demonstrate what they have learned. Keeping in mind the diverse skill levels of their students, the teachers also ask, ‘How do we modify the instructional model? How do we differentiate instructional approaches?’”

As Roberts explains it, “Teachers act as students [and] do the work,” which
involves completing performance-based tasks similar to those their students are expected to do. Teachers then use what they’ve learned to develop assessments and accompanying instructional modules, which they take back to their own classrooms. After implementing the plans, the teachers come back together again, bringing with them collected student work samples. Together they examine the quality of those samples, determine what worked in the modules and what did not, and make adjustments to improve instruction. They then repeat the cycle.

Using this process of inquiry and reflective practice, Sacramento focused on ELA this past school year and will begin work on math in the fall.

Los Angeles has a three-level approach to training in support of the Common Core. In the first phase, all K–12 teachers learned the general concepts. The second level happens this summer, as the district trains teachers in K–1, sixth grade (the transition to middle school), and ninth grade (the transition to high school) in the ELA and math standards. “Every student entering a new level of school will get teachers trained in the Common Core,” says Sharyn Howell, executive director of special education. Special education always adds a third level of training in differentiation, accommodations, and modifications.

With the Common Core emphasis on literacy, “all teachers will be reading teachers and will have to fold writing into their lessons in all subjects,” says Shepard. Even though social studies and science are not part of the first phase of the Common Core, “we need to make sure that those teachers still work on getting reading and comprehension levels up.”

IEPs

With adoption of the Common Core, IEPs will be aligned with the new standards. “With a heavy emphasis on literacy across subjects, there will be a shift in how we write IEP goals for students,” says Sanger’s Kimberly Salomonson, Director of Pupil Services. The new goals, she says, will “push mastery rather than just access.”

They “will be more rigorous, with an emphasis on process rather than product,” Shahidi agrees. Students, she says, “will have to justify their answers, show why something is true. These are things we weren’t expecting before from students in special education.”

As the rollout of the Common Core proceeds, the partnership between general and special education is only growing stronger. “We have a lot to learn from special education about individual learning plans,” says CORE’s Sanders. Conversely, Sharyn Howell says she believes the conversation in her Los Angeles district will emphasize “that more rigor is expected of all students, and anytime you put emphasis on something for all students, it benefits special education.”

Ultimately, as Sanders says, “Common Core is both an opportunity and a challenge. It is cognitively demanding, but if we implement it correctly and help teachers to deliver it in the right way, it will benefit all students.”

—Janet Mandelstam

Executive Function

from page 11

rules and routines as well as providing consistent acknowledgement for appropriate behavior.

Improving Executive Function Skills

is at www.cec.sped.org/AM/Template.cfm?Section=Home&CONTENTID=10291&CAT=none&TEMPLATE=/CM/ContentDisplay.cfm.

What Interferes with EF Development?

Early stressful experiences have a deleterious effect on EF development. Extended exposure to chaos, threats, violence, and neglectful environments—and to the strong emotions that a young child must manage as a result—all keep the brain in a “fight or flight” mode so that higher-level thinking skills don’t have a chance to develop. Prolonged experience of stress can permanently—and detrimentally—alter the brain in a young child.


We also know that children with certain disabilities—those who are slower to develop the cognitive skills necessary to engage in cooperative play, for example, or those who have a more difficult time than most in regulating their feelings—may be excluded from play, disregarded, or relegated to a role they do not desire. This denigration results not only in fewer opportunities to develop and refine important EF skills but in the risk of developing or worsening challenging behaviors—an understandable result of the strong emotional response most of us feel to being disparaged.

At some point, most typically developing children show a weakness in one or more of the EF domains. Children with certain disabilities, however, are at heightened risk of delayed or impaired development of these skills. Unfortunately, these children often receive interventions for managing their behavior without consideration of their EF skills, which have traditionally been considered a school-age concern rather than one belonging in early childhood. We now know that preschool children who have difficulty focusing, who transition poorly, who don’t appear to “listen” to adults’ directions, and who engage in impulsive or aggressive behaviors may indeed be experiencing delays in the development of their executive functioning.

What’s Next?

Research confirms that, if children are to realize academic success, their early care and education experiences must support the development of EF.
On the Common Core State Standards

For Charter Schools

The National Charter School Resource Center explores some of the challenges that the Common Core State Standards Initiative poses for charter schools.

For District Leaders

The U.S. Education Delivery Institute and Achieve (an independent, bi-partisan, non-profit education reform organization) have developed Implementing Common Core State Standards and Assessments: A Workbook for State and District Leaders.

www.edexcellence.net/publications/now-what-imperatives-and.html

Now What? Imperatives and Options for Common Core Implementation and Governance, developed by the Fordham Institute, explores a number of large-picture questions related to the Common Core State Standards.

www.achieve.org/achievingcommoncoreImplementation

On the Road to Implementation, developed by Achieve, which helps states raise academic standards and strengthen accountability, discusses several important ways that state assessment systems will need to evolve to measure the CCSS.

For Everyone
www.ascd.org/common-core/common-core.aspx

ASCD (formerly the Association for Supervision and Curriculum Development), an endorsing partner of the Common Core State Stan-
dards, offers resources in support of CCSS implementation: numerous publications about such topics as curriculum, standards, instruction, and assessment as well as professional development institutes and online courses.

www.cde.ca.gov/ci/cc/

Common Core State Standards Resources on the California Department of Education Web site provide information about and resources for the new standards as they apply in California, including the state’s implementation plan and assessment updates.

www.cec.sped.org/Content/NavigationMenu/ProfessionalDevelopment/CommonCoreStandardsforStudents/default.htm

The Council for Exceptional Children provides resources on the CCSS and special education. “What Special Educators Need to Know,” “Standards’ Impact for Special Ed,” “Parents’ Guide to the Common Core State Standards,” and the CEC’s policy on academic subject matter are designed for educators and parents of students with disabilities.

For Parents
www.ccsesa.org/index/sp_CommonCoreStateStandards.cfm

The California County Superintendents Educational Services Association makes available on its Web site numerous resources on the CCSS. In particular, the document K–8 California’s Common Core Standards Parent Handbook, created with the California State PTA, provides a summary of what students are expected to learn from kindergarten through eighth grade.

www.pta.org/common_core_state_standards.asp

The National PTA offers Parent Guides to Student Success—11 guides that reflect the CCSS and that are written specifically for parents. Individual guides are available for grades K–8; two guides are available for grades 9–12, one for English language arts/literacy and one for mathematics.

For Spanish and English Speakers
www.ccsesa.org/index/sp_CommonCoreStandards.cfm

California County Superintendents Educational Services Association has developed a number of documents on implementing the Common Core Standards. Many of these materials are available in Spanish and English. The documents focus on mathematics, English language arts, and assessment and include the California Department of Education’s K–8 California’s Common Core Standards Parent Handbook.

For Teachers
http://ascd.typepad.com/blog/2012/03/common-coors.html

ASCD offers free resources to help teachers integrate the Common Core State Standards in their classrooms.

http://commoncore.org/maps/

The Common Core Curriculum Mapping Project offers teachers high-quality, curriculum tools based on the Common Core State Standards. The 76 detailed curriculum maps in English language arts include sample lesson plans and help educators create the “content-rich curriculum” called for in the CCSS.

www.achievethecore.org/

This Web site of Student Achievement Partners, an organization of educators and researchers, offers free tools to help teachers prepare to implement the Common Core State Standards, articles on the standards from leading educators, and online reflections from teachers who are currently implementing the core.
Webinars and Online Training on the Common Core State Standards

www.ascd.org/professional-development/webinars/common-core-webinars.aspx

ASCD (formerly the Association for Supervision and Curriculum Development), an endorsing partner of the Common Core State Standards, features a Common Core Webinar Series with upcoming and archived Webinars on such topics as “Transitioning to the Common Core State Standards: Making Your Efforts Effective Through a Focus on Text Complexity Demands” and “The Principal’s Role in Bringing the Common Core State Standards to Routine Use: Essential Levers for Change.”

www.acenet.edu/Content/NavigationMenu/Programs/Services/CPA/core.htm

This archived Webinar from the American Council on Education, titled “The Common Core State Standards: What Are They and What Could They Mean To You?”—features three speakers who provide an overview of the Common Core State Standards, their origins and importance, and their implications for higher education.

www.colorincolorado.org/educators/common_core/implementation/

This archived Webinar, “Bringing Common Standards Into the Classroom,” discusses approaches that two school districts are taking as they work to educate teachers in how to use the standards to create new types of teaching and learning.

http://www.cde.ca.gov/re/cc/glcewebinars.asp

This archived Webinar series, Grade Level Curriculum, from the California Department of Education, provides an overview of California’s curriculum from kindergarten through grade six, with a focus on the Common Core State Standards in English language arts and mathematics.

http://commoncore.lacoe.edu/resources/trainings.php

Workshop materials, PowerPoint presentations, and handouts from trainings on the Common Core State Standards—sponsored by the Los Angeles County Office of Education—are available on such topics as assessment and the Smarter Balanced Assessment Consortium, mathematics, English language arts, and more.

www.mathtedleadership.org/events/webinars.html


This Web site is rich with instructional materials for teachers.

Education Northwest (formerly the Northwest Regional Educational Laboratory) works with schools, districts, and communities on research-based solutions to educational challenges. Education Northwest features several archived Webinars that address issues related to the Common Core State Standards:


Helping Students Meet the Reading Common Core State Standards in History/Social Studies and the Sciences at http://educationnorthwest.org/event/1534.

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The rigorous and cognitively challenging Common Core State Standards are “giving special education students the opportunity to learn in a different way,” says Cindy Tucker. And the standards are causing “an instructional shift” in the way these students are taught, says her colleague Val Hogwood. Tucker, associate superintendent for school support in the Fresno Unified School District, and Hogwood, director of instructional support, are planning for the changes that will arrive with implementation of the Common Core in 2014.

Today, when students with disabilities are struggling, Tucker says, “we tend to rescue rather than scaffold.” But with the Common Core’s emphasis on critical thinking, “the students will be directed back to the text to look for their answer. They will have the opportunity to reread, to discuss, to make arguments.” Adds Hogwood, “We are redesigning our learning, making sure teachers know how to tell our kids to persevere, how to guide them to be more critical.” (See article on executive function, page 9.)

Like Fresno, districts around the state are planning for full implementation of the Common Core English language arts (ELA) and math standards. While each ultimately will have its own plan, many districts are collaborating now and embracing a shared understanding of what will be required as the standards are phased in.

Seven of the state’s largest districts—the Clovis, Fresno, Long Beach, Los Angeles, Sacramento City, San Francisco, and Sanger Unified School Districts—formed the California Office to Reform Education (CORE) in 2011 as a way to prepare for implementing the Common Core. The Oakland Unified School District recently became the eighth member.

Working together, teams of senior instructional leaders from each of the districts are studying the content of the standards, looking at the challenges of implementation, developing assessments that will measure student progress toward meeting the standards, and piloting some of their work in classrooms this fall.

What they are not doing is putting special education in a silo. Whether acting as part of CORE or organizing learning teams within their individual districts, special education directors, academic officers, and other administrators are making sure that those who teach students with disabilities have access to the same training, material, and expertise as their general education colleagues.

The Common Core “will shatter the glass wall between general education and special education,” says Long Beach’s Connie Jensen, assistant superintendent, office of school support services. “All will join in the same staff development and work together on implementation.”

“In special education we have looked for alternative or supplemental curriculum,” adds Susan Shepard, special education coordinator in San Francisco. “That was separate but unequal. Now, with Common Core, the curriculum is the same [although] our students will need more scaffolding” to master it.

The educators interviewed for this story stress that they are still in the early stages of implementation, but they generally agree about what preparation is needed:

• Formative assessments will highlight the need for—and path to—differentiation so that all students can access the core.
• Professional development will be especially important for teachers in all subject areas, including resource specialists (RSP) and special day class (SDC) teachers.
• The rigorous curriculum with its emphasis on literacy will change the way all students, including students

The Special EDge