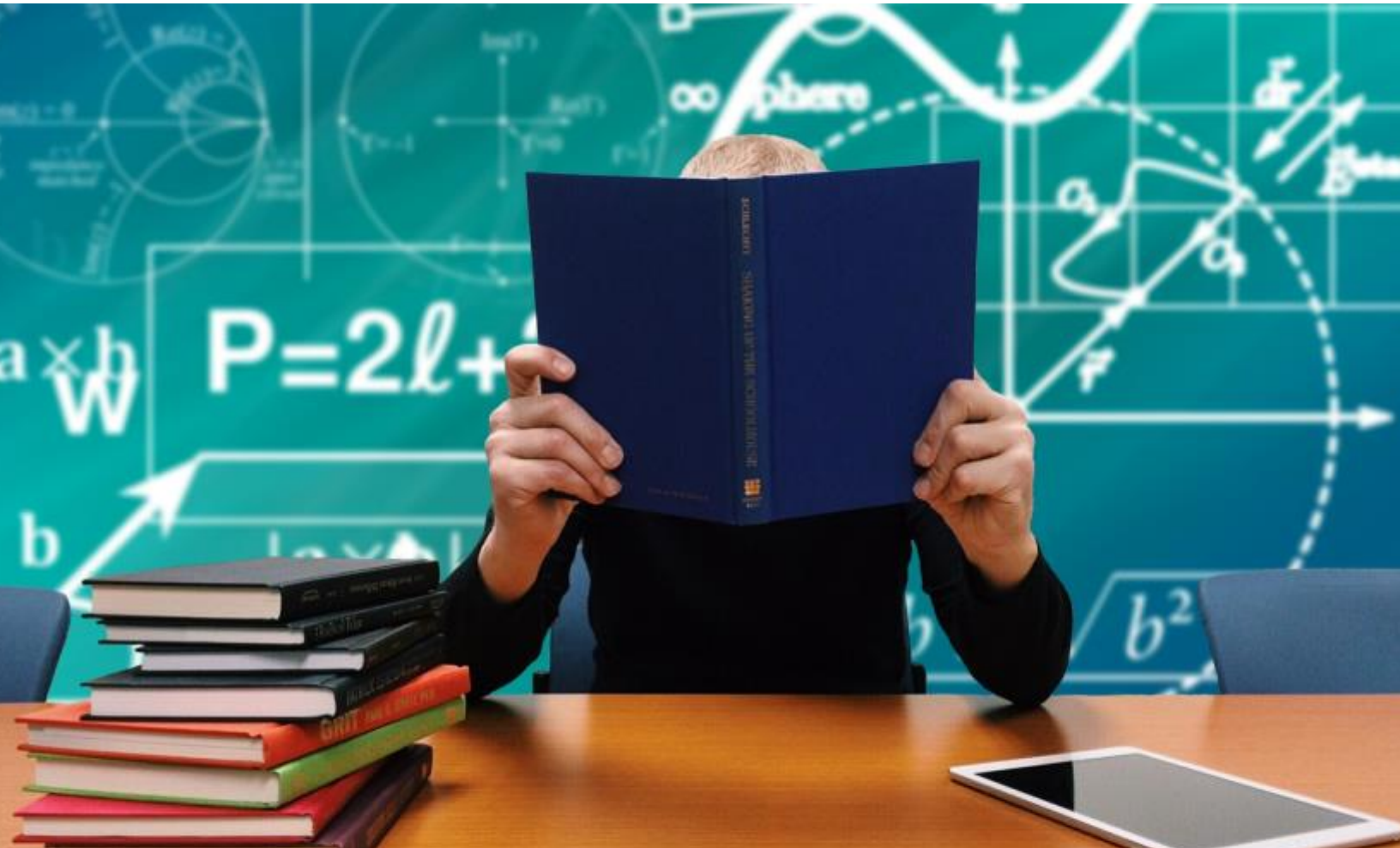
TeachME PROFESSIONAL DEVELOPMENT
CEU's for Teachers and Educators

Deeper Learning for English Language Learners and Students with Disabilities



EDITORS' INTRODUCTION TO THE DEEPER LEARNING RESEARCH SERIES

In 2010, Jobs for the Future—with support from the Nellie Mae Education Foundation—launched the Students at the Center initiative, an effort to identify, synthesize, and share research findings on effective approaches to teaching and learning at the high school level.

The initiative began by commissioning a series of white papers on key topics in secondary schooling, such as student motivation and engagement, cognitive development, classroom assessment, educational technology, and mathematics and literacy instruction.

Together, these reports—collected in the edited volume *Anytime, Anywhere: Student-Centered Learning for Schools and Teachers*, published by Harvard Education Press in 2013—make a compelling case for what we call "student-centered" practices in the nation's high schools. Ours is not a prescriptive agenda; we don't claim that all classrooms must conform to a particular educational model. But we do argue, and the evidence strongly suggests, that most, if not all, students benefit when given ample opportunities to:

- Participate in ambitious and rigorous instruction tailored to their individual needs and interests
- Advance to the next level, course, or grade based on demonstrations of their skills and content knowledge
- Learn outside of the school and the typical school day
- Take an active role in defining their own educational pathways

Students at the Center will continue to gather the latest research and synthesize key findings related to student engagement and agency, competency education, and other critical topics. Also, we have developed—and have made available at www.studentsatthecenterhub.org—a wealth of free, high-quality tools and resources designed to help educators implement student-centered practices in their classrooms, schools, and districts.

Further, and thanks to the generous support of The William and Flora Hewlett Foundation, Students at the Center has expanded its portfolio to include an additional and complementary strand of work.

The present paper is part of our new series of commissioned reports—the Deeper Learning Research Series—which aim not only to describe best practices in the nation's high schools but also to provoke much-needed debate about those schools' purposes and priorities.

In education circles, it is fast becoming commonplace to argue that in 21st-century America, each and every student must aim for "college, career, and civic readiness." However, and as David T. Conley described in the first paper in this series, a large and growing body of empirical research shows that we are only just beginning to understand what "readiness" really means. Students' command of academic skills and content certainly matters, but so too does their ability to communicate effectively, to work well in teams, to solve complex problems, to persist in the face of challenges, and to monitor and direct their own learning—in short, the various kinds of knowledge and skills that have been grouped together under the banner of "deeper learning."

What does all of this mean for the future of secondary education? If "readiness" requires such ambitious and multi-dimensional kinds of teaching and learning, then what will it take to help students become genuinely prepared for life after high school, and what are the implications for policy and practice?

INTRODUCTION

While there is no single, fixed definition of "deeper learning," the term tends to be used to describe a mix of academic, personal, and relational capacities, including elements such as "collaborative learning," "critical thinking," "conceptual understanding," and "learning how to learn." Typically, deeper learning is said to have an affective dimension as well, touching on characteristics such as "persistence" and "self-motivation," and advocates often argue that students should be taught to take responsibility for their own learning through active engagement in their education (Martinez & McGrath 2014).

In this paper, I argue that the nation's immigrant students and English language learners are likely to benefit from such focused, critical, and engaging classroom instruction. In fact, one could argue that these children tend to be *better* equipped for such teaching and learning than monolingual, non-immigrant students. However, to the extent that English language learners are framed as deficient and in need of remediation, schools tend to overlook their affinity for deeper learning.

Our public schools have always enrolled significant numbers of immigrant students, though the numbers have varied over time. But Title VII of the Elementary and Secondary Education Act (ESEA) brought into being the category of "English Language Learners" (ELLs)—or, as they are still sometimes referred to, Limited English Proficient (LEP) students—in 1968. Title VII, also known as the Bilingual Education Act (BEA), was the first federal acknowledgment that immigrant students and children who come to school speaking a language other than English need special accommodations to ensure their academic success. This naturally led to the need to identify and label these students, for the purpose of targeting resources to them.

It is important to note that ELLs and immigrant students are not one and the same. Most (though certainly not all) immigrant children spend a period of time as English language learners, but today most ELLs are not immigrants. According to current estimates, almost 90 percent of all ELLs were born in the U.S. Overwhelmingly, then, the resources dedicated to educating ELL students support native-born U.S. citizens.

How to best to utilize resources to support ELLs' learning has been an ongoing national debate. In 1967, U.S. Senator "Smilin' Ralph" Yarborough of Texas, the chief sponsor of the BEA, went on record in favor of "the creation of bilingual-bicultural programs, the teaching of Spanish as a native language...designed to impart to Spanish-speaking students a knowledge and pride in their culture" (Schneider 1976, p. 22).[1] Many other education activists, heady with recent victories on civil rights, advocated similar positions. However, because Yarborough and his allies were unable to win the support of the Johnson administration, they had no real hope of passing legislation that would privilege the language and culture of Spanish speakers.

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[1] The 1960s was a period of historically low immigration, and to the extent that speakers of languages other than English were acknowledged at all, it was generally limited to the pockets of Spanish speakers mostly clustered in the Southwest and the Miami area.

As Mehlman Petrzela (2010) recounts, passage of the bill depended on its ability to fit into the overall objectives of the ESEA, which focused on remediating the disadvantages of poor children, and to not challenge the popular notion of the "melting pot," which demanded that immigrants relinquish their distinctive cultural characteristics. Moreover, as Moran (1988) notes, "[Yarborough's] vague statement of purpose masked fundamental differences over whether the programs were designed to promote assimilation by overcoming a language 'deficiency' or were intended to foster pluralism by acknowledging a linguistic asset" (p. 1273). In the end, the former perspective—defining English language learners as having a deficiency that requires remediation—won out. Multiple reauthorizations of the ESEA have only furthered the emphasis on deficiency.

But the debate did not end there. Since 1967, countless educators, researchers, politicians, and others have continued to wrestle over how best to support immigrant students and English language learners. We now have nearly 50 years of research on ELL students and classrooms from which to draw and almost 50 years of experience with deficit-based policies and practices upon which to reflect. Moreoever, this is now a very different nation, demographically and politically, than it was 50 years ago.

In this paper, then, I return to the vision that Yarborough outlined in 1967, asking once again whether our students might be better served if we understood their linguistic and cultural backgrounds as *assets*, not deficiencies. I begin, in the following section, by describing the current educational status of the nation's ELLs and immigrant students. I go on to describe the ways in which their skills have been denigrated, and I consider a number of ways in which linguistic and cultural diversity and immigrant experiences might be reframed as valuable resources for deeper learning. I conclude with recommendations for federal and state policymaking in this area.

FRAMING AND REFRAMING ENGLISH LANGUAGE LEARNERS AND IMMIGRANTS

In the 2012-13 school year, nearly five million students across the U.S., comprising almost 10 percent of the total school-age population, were designated as English language learners (Zong & Batalova 2015; if one considers all students who come from homes where English is not the primary language spoken, the figure doubles to more than 20 percent; Ryan, 2013). Many students who today do not carry the label of ELL, were once ELLs and may still be on a continuum of learning academic English; most of these students go home every day to an environment in which English is rarely heard. Because there is no national test of English proficiency or even agreement as to what constitutes "proficiency" in English for academic purposes, any count of the number of ELLs is, in reality, a best estimate. And while these children are often referred to as "immigrant children," as noted above, the truth is that very few English language learners are born outside the country. In 2013, 88 percent of children of immigrant parents were native-born citizens (Zong & Batalova 2015).

In the U.S. today, more than 17 million children under age 18 live with at least one immigrant parent, constituting one in four children overall (Zong & Batalova 2015). Contrary to popular perceptions, most of the 41 million foreign-born residents of the U.S. are legal residents; almost half are naturalized citizens, and only about one-fourth are unauthorized (Zong & Batalova 2015)—which still means that millions of children live in a household in which at least one person is at risk of being deported. This threat often places strains and restrictions on the entire family. Children can be distracted from learning due to fears that one or more of their family members will not be there when they return from school, or they may hesitate to become engaged in school, knowing they could be removed at any moment. This is not an exaggerated concern: according to recent estimates, roughly 450,000 U.S.-born children now live in Mexico, most having returned with family members forced to leave the U.S. (Lakhani 2015).

Seventy-one percent of English language learners speak Spanish, and the next largest language group is Chinese (both Mandarin and Cantonese) at just 4 percent, followed by Vietnamese at 3 percent (Ruiz et al. 2015). Only 5 states claim a language other than Spanish as the primary non-English language spoken, but in 19 states, more than three-fourths of English language learners speak Spanish. Thus while there is great linguistic diversity in the U.S., with respect to both numbers and concentrations of students, a few languages predominate, with Spanish being overwhelmingly the primary non-English language spoken. This may begin to change, though, as Asians have overtaken Latinos as the group sending the largest number of immigrants to the U.S. (Jensen 2015).

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The size and concentration of languages other than English has significant implications for how education systems can serve students. Trying to educate students from many different language backgrounds in a single school or classroom can be especially challenging and can restrict the programmatic options available to educators. However, where there are large concentrations of a single language, or just a few languages, and where there are teachers who speak those languages, there are more instructional options. For example, bilingual programs can be mounted in schools where there are many children of the same language group and teachers prepared to teach in that language as well as in English. However, where many different languages are spoken and trained teachers from those language groups are not available, other program models must be considered.

The five traditional immigrant "gateway states"—California, Texas, New York, Florida, and Illinois—continue to be home to nearly two-thirds of all ELLs nationwide, but the greatest growth in English language learner students has been in "new destination" areas. In 2009, for example, South Carolina, Alabama, and Tennessee experienced the most rapid growth in immigration, mainly from non-English speaking countries (Terrazas 2011). This development presents major challenges, since states with no history of such immigration often lack policies and infrastructure to support these students. Also, the sudden influx of new immigrants can stimulate a hostile reception in areas where people feel unprepared to receive newcomers, exacerbating the trauma many immigrant students experience (Cornelius 2002).

Framing Students who are Speakers of Other Languages

Whether they are immigrants or native-born U.S. citizens, students who arrive at school with a primary language other than English are usually defined by what they lack: English language skills. Thus they have been dubbed "Limited English Speakers" (LES), "Limited English Proficient" (LEP), or "English Language Learners" (ELL), among other labels. This framing has resulted in these students being viewed as deficient, remedial, or lacking in fundamental skills that are critical for normal academic achievement. Thus, most programs that serve these young people are designed to fix a deficiency, and students are deemed ready to join the mainstream and have full access to a regular curriculum only once this is accomplished (Callahan 2005; Callahan & Gándara 2004).

Recent policy shifts away from supporting bilingual classrooms (where students can move more or less seamlessly from using their primary language to speaking more and more English) to a greater emphasis on Structured English Immersion (SEI) have led to surging rates of "reclassification." Cited as a goal of No Child Left Behind, and built into its accountability system, the movement of students to English Proficient status has become the chief objective of most programs for ELLs. For example, Arizona created a statewide SEI program that consists of four hours of English language drills every day, to the exclusion of most other subject matter instruction, with the sole goal of reclassifying ELLs, "normally in one year" (Martinez-Wenzl et al. 2012). Of course, the great

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majority of ELLs do not gain proficiency in English in just one year, so their exclusion from the regular curriculum can last much longer.

In a 2006 study of California's program for ELLs, researchers found that the average student had less than a 40 percent chance of being reclassified to English Proficient within 10 years (Parrish et al. 2006). Since that time, pressure by the state to speed up the process has resulted in increased rates of reclassification, but even so, students rarely achieve this goal within a year or even two (Hill et al. 2014). In any case, one might ask why educators and policymakers don't pay more attention to the *quality* of the programs offered to ELLs, rather than simply focusing on the speed at which students *escape* them. To date, very little research has been conducted on the quality and appropriateness of the instruction in such programs, or on the preparation and skills of their teachers (apart from small qualitative studies that look at only a handful of schools). Currently, all we know is that there is great variation in programs and teacher preparation across and within states (López et al. 2015), and that states with specific policies for the instruction of ELLs have better outcomes for these students than those without (Rumberger & Tran 2010).

Unfortunately, by the time ELLs are considered proficient in English, they have often lost so much learning time that it becomes all but impossible to catch up with their native English speaking peers (Lillie et al. 2012; Gándara & Rumberger 2008), which puts many of these students at a disadvantage that continues throughout their schooling.

Of course, all students in the U.S. need to develop strong English skills. However, and as I will argue, building on English language learners' linguistic strengths *as they acquire English* makes better sense than holding them back on the (unsupported) assumption that they will "catch up" later. Finally, it should be noted that this insistence on a sequential approach—first learn English, and then gain access to the regular curriculum—begs the intent of the 1974 Supreme Court ruling in *Lau v. Nichols*, which found that English language learners must be given access to the same curriculum as English speaking students.[2]

FRAMED BY THE TESTS

The poor performance of ELL students on standardized assessments fuels the belief that they are fundamentally deficient and in need of remediation above and beyond all else. On average, English language learners score lower on academic achievement tests than almost any other subgroup except special education students. This remains true throughout the grades. For example, the 2013 National Assessment of Educational Progress (NAEP) found that 69 percent of English language learners were below basic proficiency in eighth-grade mathematics, compared to just 25 percent of non-English language learners. eighth-grade reading scores were similarly dismal, with 70 percent of ELLs scoring below basic, compared to 21 percent of non-ELLs (NAEP 2013). Scores at the fourth-grade level were similar.

However, it is important to note that since the highest performing ELLs are constantly being moved out of the ELL category (reclassified as English proficient), such reports include only lower-performing ELL students, which is to say that "English language learners," *by definition*, will have low scores. This has prompted many researchers (e.g., Hopkins et al. 2013) to argue that, for purposes of monitoring the performance of former ELLs, and for making appropriate comparisons between ELLs and non-ELLs, data should be collected and reported for the category "Ever ELL," which would include students who have been reclassified.

Nonetheless, comparisons over time should reflect whether ELLs are gaining ground, losing ground, or maintaining the same level of performance relative to non-ELLs. On that score, it appears that the education reforms of the last couple of decades have not closed gaps. For example, nationally, since 1996 (the first year for which the NAEP shows gap trend lines for English language learners), the gap between English language learners and all others in eighth grade math has not narrowed, and in fact has begun to widen: in 2003, the gap between English language learners and English speakers who scored proficient was 20 points; in 2013 the gap had grown to 24 points. Eighth grade reading proficiency showed a similar widening of the gap (3 points) over the same period. At least from the perspective

[2] The *Lau v Nichols* (1974) decision was based on Title VI of the Civil Rights Act, which found that not providing English learners with access to the same curriculum that all other students receive is a violation of the non-discrimination clause regarding national origin (and interpreted to include language). The Court did not provide a specific remedy, only affirming that the ELL students needed to be provided with a means to access the regular curriculum as quickly as possible.

of math and reading score gaps, educational achievement has not improved nationally for English language learners, who, across the grades, remain significantly behind their native English-speaking peers.

BARRIERS TO ACADEMIC ACHIEVEMENT

Language difference is just one—and perhaps not even the most important—of many reasons for these achievement gaps, although the way schools *treat* language difference certainly plays an important role in sustaining them. For example, many schools insist on teaching academic classes in English from day one, even though students may not yet understand what their teachers are saying. Further, many schools neglect to assess what their ELLs know and can do in their primary language, and thus often assign perfectly capable, even high-achieving, students to remedial courses solely because their English is weak.

With a few exceptions (including New York, Texas, and Illinois), states require students to take achievement tests in English. In some cases, the state has the capacity to test students in their native language but chooses not to because it has adopted English-only instructional policies, which educators take to require assessment in English. Other states, however, simply lack the capacity to offer tests in other languages and have not dedicated resources to developing them. Whatever the reasons, when schools test students in a language they do not fully comprehend and make educational decisions based on these invalid scores, they contribute to ELLs' low performance.

That said, many immigrant students and ELLs are significantly disadvantaged educationally, but not necessarily for reasons having to do with language. Rather, their struggles may result from a history of weak and interrupted instruction, or from the effects of poverty or other challenges. Some educators or policymakers may be tempted to blame students for their poor performance or attribute it to their lack of English proficiency, when in fact other variables (that are out of the students' control) constrain their achievement.

Poverty is perhaps the greatest threat to all low-income students' academic achievement because it can directly affect cognitive development through inadequate nutrition, poor health care, mental health challenges, distractibility, insecurity, and other factors (Berliner 2006; Carter & Welner 2013). Chronic health problems associated with poverty are also related to high absenteeism from school, putting students even further behind (Berliner 2006).

More than 40 percent of children of Latino immigrants are born into poverty (Lichter et al. 2015). Further, this population is especially likely to fall into deep poverty—in 2014, more than one in eight of these children lived below 50 percent of the poverty line (less than $12,000 a year for a family of four), compared to about 6 percent of all other children (U.S. Census 2015). Since Latino immigrants make up about half of the nation's immigrants (Zong & Batalova 2015), that means that a significant portion of the nation's immigrant children and English language learners are living in poverty, many of them below subsistence level. To make matters worse, many social services are not available to immigrant families (even those who are legally authorized to be in the country) because of punitive federal and local laws (Hagan & Rodriguez 2002). Additionally, Latino children of immigrants are less likely to attend preschool than any other subgroup (Murphey et al. 2014), so the ameliorating effects of early childhood education are not available to nearly half of these young English language learners.

Barriers to effective learning continue into the secondary grades, where these young people are often lost in the shuffle, placed with teachers who may not know they have English language learners in their classes. Overall, middle and high school students identified as ELLs are roughly twice as likely to drop out as their peers (Callahan

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2013). Thus, it should come as no surprise that Latino youth, approximately half of whom begin school as English language learners, are the least likely to complete a college education compared to the other major racial/ethnic subgroups (Gándara & Contreras 2009).

For most immigrant students and for those classified as ELLs at the secondary level, two-year colleges are the only viable option because of weak preparation in high school and the costs of postsecondary education (Martinez-Wenzl 2014). Unfortunately, most who enter two-year colleges will never complete a degree, and end up simply incurring college debt without seeing the increase in earning power that a college degree provides (Huelsman 2015).

THE TRAUMA OF THE MIGRATION EXPERIENCE

While most ELL students are U.S.-born, their parents are usually immigrants. Many of these families have experienced great trauma, having left their home countries to escape war, gang activity, deep poverty, natural disasters, and other crises. Often, this means leaving everything behind, including close friends and relatives, which can take an enormous psychological toll on family members (Falicov 2002, Suárez-Orozco et al. 2001), adding to the stress of the migration experience and weighing heavily on children as they try to adapt to a new country, new language, and new expectations, with few if any support services. Once they arrive in the U.S., immigrant families are often isolated from the mainstream and segregated by ethnicity, language, and poverty (Orfield 1995; Orfield & Yun 1999). Further, they tend to lack knowledge of how to navigate the educational system. Frequent residential moves (as parents seek employment) can mean frequent changes in school enrollment, putting these students at increased educational risk (Ream 2005).

Of course, there are enormous differences in socioeconomic status among the children of immigrants in the U.S. For example, two-thirds of Taiwanese immigrant mothers hold at least a Bachelor's degree, while only slightly more than 3 percent of Mexican mothers have a college degree; similarly, less than 20 percent of Taiwanese immigrant families live at or near poverty, but more than two-thirds of Mexican immigrant families fall into this category (Hernandez et al. 2006). Indeed, many Asian immigrants enter the country with higher levels of education, and often greater ability to navigate the educational system, than the native U.S. population (Lee & Zhou 2014). Such examples notwithstanding, the great majority of children of immigrants come from low-income families with relatively low levels of formal education.

Further, the many undocumented young people known as "Dreamers"—those who were brought to the country at an early age and may have discovered only recently that they aren't U.S. citizens—live in constant fear of being apprehended (Gonzalez 2011). Unable to apply legally to work or drive a car or (in most states) pay in-state college tuition, Dreamers often struggle to find the motivation to work hard in school and prepare for a career. The Deferred Action for Childhood Arrivals (DACA) program, launched in June 2012 by the Obama Administration, has provided some relief for more than half a million young people who meet its very strict criteria. However, it is estimated that at least another half million meet the criteria but have not come forward, perhaps because they fear identifying themselves to government officials, lack information about the program, worry that they cannot provide the necessary documentation, or are simply unable to pay the $465 application fee (Kasperkevic 2014). They may worry, also, that DACA protections could disappear overnight, as has been called for by some politicians. Thus, the specter of deportation still hangs over many of these young immigrants, casting a shadow over every part of their lives, including education.

Reframing ELLs and Immigrant Students: Assets and Opportunities

In spite of the many challenges they face (and perhaps *because* of them), these students can also be viewed as *advantaged* in certain ways, possessing some important skills and dispositions that monolingual and mono-cultural students may lack. Their most obvious asset is the ability to speak another language (in most cases a major world language that is highly valued in the labor market), but there are others. Often, ELLs and immigrant students have complex, multinational perspectives on history, culture, and politics; belong to a culture that prizes collaboration (which is now seen as a critical 21st-century skill); display greater motivation to learn than many native-born peers; and have become strongly resilient and self-reliant (Garcia et al. 2012; APA 2012). What these characteristics all have in common, of course, is their association with key features of deeper learning.

MULTILINGUALISM

Multilingualism has been shown to be associated with a series of cognitive advantages, including a greater ability to invoke multiple perspectives in problem solving (Bialystok 2001). The multilingual student knows intuitively that there is more than one way to get to the right answer or define a concept because she does this routinely. Research also shows that multilingualism is related to less distractibility and greater ability to focus attention on a task (Bialystok 2001), another prerequisite to engaging learning in a deeper way. In fact, Guadalupe Valdés (2003) has argued that young immigrant children who function as interpreters for their family members exhibit a special kind of giftedness in moving back and forth across languages and cultures, as they extract and represent meaning for others.

A recent analysis of data from the U.S. Department of Education's *Education Longitudinal Study*—which has followed the progress of more than 15,000 young people since 2002, when they were in tenth grade—offers further evidence that bilingualism confers a strong advantage. Lucrecia Santibañez and Stela Zárate (2014) found that students from immigrant families (both Asian and Latino) who maintained their primary language at high levels, and thus became balanced bilinguals, were more likely to go to college than those who lost their primary language; among Latinos, they were more likely to go to four year colleges. The researchers hypothesized that the bilinguals' greater success in getting to college was probably due to having more extensive social networks. That is, they had greater social capital than the monolingual children of immigrants and therefore more support and access to knowledge about enrolling in higher education. Ruben Rumbaut (2014) has found similar advantages for balanced bilingual adolescents with respect to high school graduation, perhaps due to greater social networks or perhaps, as others have theorized, because adolescents who maintain the family language communicate more intensively with parents and extended family, and therefore are more likely to receive and heed advice about completing school and going on to postsecondary education (Portes & Hao 1992). Certainly, the development of sophisticated cognitive skills coupled with greater social assets paves the way for equally sophisticated learning.

MULTICULTURALISM

Having an insider's knowledge of another country and having learned to navigate everyday life in more than one culture may also help students to be more *cognitively flexible* (Bialystok 2001)—i.e., to understand that problems can be assessed and solved in more than one way. Cognitive flexibility is also related to creativity, the ability to imagine alternative ways of representing ideas and experiences, also known, in psychological parlance, as divergent or novel thinking (Sternberg 1999).

The biological concept of "hybridization"—bringing together two or more varieties of an organism to create stronger, more resilient progeny—may be a useful analogy here: a hybrid cultural identity can be a powerful asset for individuals and groups. For example, Scott Page (2008) has shown through a variety of novel experiments that diverse groups tend to be more creative and better at problem solving than homogeneous groups. Thus, by bringing greater diversity to classrooms, the inclusion of immigrants and ELLs can benefit all students, prompting them to think differently about concepts and problems presented in the curriculum.

Further, by virtue of having learned to live and study within a new cultural environment, immigrant students can be particularly welcoming of differences, skilled at inter-cultural communication (Genesee & Gándara 1999), and comfortable working on diverse teams—characteristics that employers often describe as highly valuable (Forbes Insight 2013).

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IMMIGRANT OPTIMISM

Research on adolescent English language learners has found that motivation is the key prerequisite to educational success (Meltzer & Hamann 2003). Students from immigrant backgrounds can be especially motivated by their parents' strong belief in the "American Dream" for their children. In examining the educational trajectories of immigrant students, Grace Kao and Marta Tienda (1995) famously observed that this contributes to what they called the "immigrant paradox." They found (and this has been confirmed by several other studies) that the children of immigrants, as a group, often attained better educational outcomes than subsequent generations—i.e., the opposite of the classic immigrant paradigm, in which each generation outperforms the one that came before it.

In a more recent study of four generations of Mexican immigrants in Texas, Edward Telles and Vilma Ortiz (2009) found that the children of immigrants completed more years of education than third- and fourth-generation members of the same families. Telles and Ortiz offer structural explanations (e.g., weak schooling) for the failure of post-immigration generations to prosper, but other researchers suggest a psychological explanation: to a large extent, the success of first-generation immigrant students may be due to their belief that success *is in fact possible*, combined with a strong appreciation for their parents' sacrifices. According to researchers Carola and Marcelo Suárez-Orozco (1995), the "immigrant optimism" of parents—the belief that opportunities are greater in the new land—often propels children to work harder to achieve the "American Dream," even in the face of daunting obstacles. And in contrast to the limited options available in the old country, the American Dream may seem all the more tangible.

Further, confronting the challenges associated with the immigrant experience (learning a new language, adapting to a new culture, perhaps having to cope with the hazards of a difficult neighborhood or contending with peers who are disengaged from school) can also lead adolescents to develop certain dispositions that psychologists have found to be far more important than sheer intelligence (Duckworth et al. 2007).

Disillusioned with the limited ability of measured intelligence alone to predict life outcomes, researchers have looked increasingly to affective variables to help explain young people's varying levels of success in school, work, and other settings. Especially important seem to be characteristics such as stress management, adaptability, interpersonal skills, and persistence, each of which is highly relevant to the experience of trying to make one's way in an unfamiliar country and new language, often with few resources. As Birgit Leyendecker and Michael Lamb (1998) attest, "Successful immigration demands enormous resourcefulness and flexible adaptation to new and changing circumstances" (p. 251).

COLLABORATIVE ORIENTATION

It is important to keep in mind that Latinos and Asians comprise the overwhelming majority of immigrant students in U.S. schools. Of course, not all members of an ethnic or racial group can be presumed to share the same values and beliefs. That said, however, some patterns of socialization do tend to be broadly shared within cultural groups, which can have important implications for teaching and learning. For example, consider Uri Triesman's work in mathematics education at the University of California, Berkeley, four decades ago, which served as the foundation for his well-known Emerging Scholars model of instruction (Asera 2001). Observing the study habits and academic outcomes of Chinese and African-American students, Triesman noted that the Chinese students naturally formed study groups and helped each other to figure out problems, while the African-American students tended to study alone, without

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the help or support of peers. Reasoning that this difference in study habits could help explain why the Chinese students were outperforming the African-American students, Triesman incorporated their model of peer teaching and support into his math program for minority students at Berkeley, and he quickly saw a dramatic increase in their academic achievement. Although Triesman did not use the term "deeper learning," what the Chinese students were doing was entirely consistent with its tenets—they were figuring out collaboratively how to make sense of and solve complex mathematical problems.

Similarly, psychologists have long noted a preference for cooperative versus competitive peer interactions among Latino students, especially those raised in traditional Latino cultures (Knight et al. 1995). This preference is believed to be linked to socialization in the home, particularly to Latina mothers' greater emphasis on cooperative and respectful family interactions, relative to Euro-American mothers' tendency to encourage more individualistic behavior and independence (Leyendecker & Lamb 1998). While an emphasis on individualistic behavior serves students well in settings where they are expected to study alone and compete with their peers for the right answer, preference for cooperative behavior would seem to lend itself to the kinds of shared inquiry and teamwork that are cornerstones of the deeper learning model.

RESILIENCE

Psychologists have been keenly interested in the topic of resilience for more than 50 years, and a number of leading researchers have dedicated themselves to exploring its role in human development (e.g., Rutter 1979; Werner 1995; Masten 2001). Defined as "a dynamic process encompassing positive adaptation within the context of significant adversity" (Luthar et al. 2000, p. 543), its relevance to the lives of immigrant children is readily apparent.

In spite of often traumatic uprooting from their homes, harrowing migration passages, and hostile receptions in the new land, immigrant children often arrive in the U.S. full of hope for the future, with a drive to succeed in school. There is no consensus as to what, exactly, leads so many young people to develop such positive outlooks in the face of such adversity. However, such resilience does appear to be common. Indeed, some researchers have found that immigrants, in spite of their travails, actually demonstrate better mental and physical health than the native-born population (Tienda & Mitchell 2006: APA 2012).

Bonnie Benard (2004) argues that four "personal strengths," or manifestations of resilience, can be observed in resilient children: (1) social competence; (2) problem solving; (3) autonomy; and (4) sense of purpose—virtually all research studies of resilience have associated it with characteristics that fit easily into these four categories (though the terminology may vary). In order to survive and prosper in an alien environment, immigrant children must attend carefully to the behaviors that constitute social competence, must learn to solve problems in novel situations, and often must do these things with little peer or adult assistance because they do not speak the same language—literally or figuratively—as their classmates and teachers. A sense of purpose, the fourth strength, is often provided by parents who embody the notion of sacrifice for the chance at a better life, a lesson their children learn daily (Suárez-Orozco & Suárez-Orozco 1995).

Having developed these forms of resilience, many immigrant students would seem to be well-suited to the kind of engaged, critical, challenging school experiences that the deeper learning movement heralds. However, to the extent that these students are framed as deficient and in need of remediation, these strengths tend to be overlooked.

This is not to say that the performance of immigrant students would greatly improve if only their teachers came to recognize the assets they bring with them to school. As the researcher Gordon Allport (1954) hypothesized more than 60 years ago, in order to reduce the prejudice and negative stereotypes that affect the performance of minority students, conditions would also need to be created that allow those students to engage *in equal status interactions* with individuals from majority groups.

Three decades later, Elizabeth Cohen (1986) demonstrated how this theory can be applied by creating instructional contexts in which students of minority and majority backgrounds have opportunities for equal status contact, allowing them to break down their negative stereotypes of each other. In these classrooms, non-mainstream students are also viewed as purveyors of knowledge with commensurate, albeit sometimes different, skills as mainstream students. Such classrooms level the educational playing field for minority (in this case ELL and immigrant) students. However, Cohen has also shown that this "complex instruction" requires considerable skill

and diligence on the part of the teacher, and interactions must be carefully planned and choreographed. Students must be organized so that each can make an important contribution to the group, and groups must be mixed often so that students do not acquire fixed labels (e.g., the smart kid, the dumb kid). Thus, teachers must be both amenable to extensive training and committed to the goals of equity in education. With those conditions in place, ELL and immigrant students could exploit their advantages to lead the way to deeper learning for the whole class.

What Would Truly Effective Secondary Schooling Look Like for ELLs and Immigrant Students?

Over the last several decades, policymakers have debated the most effective way to educate English language learners and immigrant students, but virtually all of those debates have centered on how best to *achieve rapid transition to English* and assimilation to the dominant culture (Martínez-Wenzl et al. 2012), without real consideration to other goals.

If the only goal were for students to achieve rapid transition to oral English in the early grades (and concomitant assimilation in the mainstream culture), then it might indeed be preferable to provide an English-only instructional program. As Fred Genesee and his colleagues (2006) found in a massive review of research on the education of English language learners, "Evaluations conducted in the early years of a program (Grades K-3) typically reveal that students in bilingual education scored below grade level," (p. 201), and were outperformed by students in English immersion programs.

But if one takes a longer view—defining the goal as helping students to *achieve at high levels over the course of their schooling, as well as becoming reclassified as English proficient*—then bilingual and dual language instruction show the strongest outcomes (Umansky & Reardon 2015; Valentino & Reardon 2015). Genesee and his colleagues go on to note:

> Almost all evaluations of students at the end of elementary school and in middle and high school show that the educational outcomes of bilingually educated students, especially those in late-exit and two-way programs, were at least comparable to and usually higher than their comparison peers (p. 201).

For example, Ilana Umansky and Sean Reardon (2015) followed a large cohort of ELL students from kindergarten to high school. The students had been in English-only, bilingual, or dual language programs in the same large district. Carefully controlling for all observable characteristics that could influence educational outcomes, the researchers found that the bilingually educated students outperformed the English-only students on all outcome measures: proficiency in English, reclassification as English proficient, and achievement in English language arts.

Further, if the educational goals for ELLs include preparing for and going to college, then there is additional reason to support bilingual and dual language instruction. As noted earlier, an exhaustive analysis of federal data found a significant relationship between balanced bilingualism and going to college (Santibañez & Zárate 2014). Using another U.S. Department of Education data set (NELS), Orhan Agirdag (2014) found that once students "with immigrant roots" who maintained their primary language entered the labor force, they earned several thousand dollars a year more than students who lost their primary language abilities. A study of yet another merged data set, which focused on adolescence and early adulthood in Southern California, found a similar earnings advantage for balanced bilinguals, in addition to higher rates of high school graduation (Rumbaut 2014).

Finally, the host of personal and interpersonal benefits that accrue to speaking more than one language provide yet another reason to choose a program of study for ELL students that includes development of the primary language. For example, evidence suggests that a strong identity plays an important role in school success for ethnic

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minority students (Portes & Hao 1982), and families that maintain strong ties with a native culture are more likely to reinforce this identity and sustain the primary language in the home, thus providing critical support for bilingualism.

It is commonly believed that most English language learners enter kindergarten or first grade not speaking English, and they can quickly become fluent English speakers because "they are little sponges." In truth, however, ELL students enter the education pipeline at all grade levels. Significant numbers of ELLs attend middle and high school, either because they have recently entered school in the U.S. or because their prior schooling has been so weak or interrupted that they have not acquired the academic English that allows them to advance. In California, for example, as many as 30 percent of ELLs are found in secondary schools, and immigrant students are scattered across the grade levels.

Regardless of the strength of the education they received before entering the U.S., schools assess relatively few of these students in their primary language to determine what they know or are actually capable of doing, and provide few of them with a rigorous curriculum, including a full complement of college preparatory courses (Callahan 2005). Notable exceptions to this pattern include International Baccalaureate (IB) programs, offered at various schools across the country, that focus on developing the linguistic and academic skills of immigrant and secondary ELL students. Aldana and Meyer (2014) report that these programs often spring up in response to intense dissatisfaction with local schools serving ELL students, and they provide rigorous, college preparatory courses in both English and a second language. They require competence in at least two languages (one being English), but do not privilege any language, so students can learn in their strongest language while developing the other. These and other two-way dual language programs also have the benefit of increasing the prestige of the school and thus attracting more middle-class and high-performing students from surrounding communities, breaking down the cultural isolation that ELLs often experience, and increasing the benefits of diversity for all students in the program or school.

Project SOL (Secondary Online Learning) is another innovation designed to provide rigorous, college preparatory mathematics, aligned with the Common Core State Standards, in an online and Spanish/English bilingual format that can be accessed by secondary students who are not yet ready to read textbooks in English, and by teachers who lack the materials to teach those students in Spanish. In recent years, Project SOL has allowed hundreds of immigrant students in California to take and pass the courses they need to graduate from high school and prepare for college. Because the format is totally bilingual, students are able to use and build on both languages (Gándara 2013).

CONCLUSION: STATE AND FEDERAL POLICY RECONSIDERED

When discussion turns to legal and political matters, it is important to note some key differences between English language learners and immigrant students. While most immigrant students are English language learners at some point in their lives, relatively few English language learners are immigrants. Today, an estimated 88 percent of ELLs are native-born citizens of the U.S. (Zong & Batalova 2015). Thus, they enjoy the same legal protections and should receive the same access to education provided to every other U.S. citizen.

While unauthorized immigrant students do not enjoy the privileges of citizenship, the Supreme Court's 1982 decision in *Plyler v. Doe* did accord them free access to public education through high school. Inadvertently, this also created the predicament that now faces the "Dreamers," those students brought to the U.S. at a young age by their parents, without legal authorization, who lack educational rights or even opportunities to work, once they leave high school.

Ironically, as the research has converged on the many benefits of bilingualism, both for academic and other deeper learning outcomes, education policy appears to have moved in the opposite direction. The Bilingual Education Act was already being undermined at the law's first reauthorization in 1974, and for the most part continued to move, in subsequent reauthorizations, away from instruction in the primary language. Finally, in 2001, with the last reauthorization of ESEA—No Child Left Behind (NCLB)—the BEA disappeared altogether. The office of Bilingual Education was renamed the Office of English Language Acquisition, Language Enhancement, and Academic Achievement. The term "bilingual" was nowhere to be found.

In recent years, Arne Duncan—U.S. Secretary of Education from 2008 to late 2015—has touted the importance of bilingualism many times, asserting, for example, that, "[It] is clearly an asset that these kids are coming to school with," which should be "maintained," and, "The fact that our kids don't grow up [bilingual] puts them at a competitive disadvantage" (Maxwell 2013). However, the federal government has no policy to foster bilingualism, maintains no office dedicated to bilingualism, and has made no effort to promote biculturalism. Rather, policymakers have focused on the rapid acquisition of English only. Moreover, the NCLB's approach to accountability embodies this focus on English-only instruction: scores on tests given in English (often before students actually know the language) determine the academic progress of ELLs.

As of the present moment, Congress is debating the reauthorization of ESEA, and the specifics of the new law have yet to be decided. However, indications are that ELLs and immigrant students will be no better served in the proposed law than in the current one.

At the state and local levels, the original Bilingual Education Act served as a strong impetus for the creation of policies to guide the education of ELL students. Prior to 1968, no

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state had a pro-bilingual education policy on the books (Moran 1988), but by 1983, all fifty states permitted bilingual education and nine states had laws requiring some form of dual language instruction (Ovando & Collier 1985). However, attacks on primary language instruction continued to pick up steam over the 1970s and 1980s, and by mid-1990s, with immigration reaching exceptionally high levels, California led the way in anti-immigrant legislation, beginning in 1994 with an extremely punitive law that eventually was found unconstitutional. The state outlawed affirmative action in 1996 and culminated it attack with an anti-bilingual law—Proposition 227—in 1998. Other states and regions followed California's lead, resulting in a steep national decline in primary language instruction. The last study commissioned by the federal government found that between 1992 and 2002, English-only instruction (allowing no use of primary language for any purpose) increased from 34 to 48 percent of all ELLs (Zehler et al. 2003). That figure is likely to be much higher today, given increasing restrictions at the state and local level.

The advent of the Common Core State Standards, currently being implemented across forty-three states in one form or another, could be the straw that breaks the camel's back. While the Common Core holds great potential for moving instruction towards the goals of deeper learning and placing a greater emphasis on language use and conceptual learning, indications are that teachers in general are not sufficiently prepared to undertake the kind of instruction it requires, and teachers of English language learners are even less prepared (Editorial Projects in Education Research Center 2013). Preparation and training for teachers of ELL and immigrant students, whether in bilingual or English-only settings, remains a major policy issue that has received inadequate attention.

How Should Federal and State Education Policy Change to Better Meet the Needs of ELLs and Immigrant Students?

- While the federal role in education policy has traditionally been restricted by the Constitution, and consisted of little more than setting a tone and providing modest specific funding for disadvantaged students, in recent years the Department of Education has increasingly encroached on territory once reserved for the states. NCLB's heavy emphasis on accountability through testing set a new bar for federal intervention, and while it importantly called attention to the needs of ELL students, it also stigmatized them and their schools. Unable to perform adequately on tests given in a language they do not understand, ELL students have been blamed for putting their schools at risk for sanctions. This policy must change. There are many alternatives to consider, including: (1) providing more time for students to acquire English before testing them in English; (2) continuing the testing, but reducing its high stakes; (3) providing bilingual testing for students straddling two languages; (4) offering alternative assessments while students are still learning English.
- Because the federal government does set a tone for the nation, states will likely respond favorably to policies that incentivize the provision of bilingual and bicultural education. The federal government could declare once and for all that immigrant children are a net asset to the nation and their strengths should be celebrated. One way to do this is to create a national Seal of Biliteracy that would be awarded to all students who can demonstrate high levels of proficiency in two or more languages upon high school or college graduation—a skill that is of great interest to college admission officers and employers. Nine states already have such a certification, and several more are considering it. Over time, this should lead to greater prestige for programs that promote biliteracy, such as dual language programs that enroll both English language learners and English speakers who are striving to become bilingual. Not only does this have the potential to bring ELLs into equal status relations with their English speaking peers, but it can also help integrate schools, which have become increasingly segregated for ELLs and immigrant students.
- The provision of high quality instruction for English language learners requires the recruitment and preparation of bilingual teachers with highly specialized skills—for the nation's ELLs and immigrant students, there is no greater need. It has proven to be quite challenging for schools to provide equitable instruction in heterogeneous classrooms, and doing so requires much training and vigilance. The challenge is doubly difficult in the case of bilingual equitable instruction. Add to this the implementation of the Common Core standards with ELLs, and any school or district has a tall order. In short, the nation urgently needs a large cadre of highly trained, highly skilled, bilingual teachers, and all levels of government would do well to consider how they can help develop such a cadre. Fortunately, with

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one in four young people coming from a home in which a second language is spoken, the candidates for these positions are available. But their talents must be tapped.

- New federal legislation should attend to the extraordinary needs of regions that have seen new and unprecedented enrollments of immigrant students, where schools have no existing infrastructure to meet those students' needs, either culturally or linguistically. The federal government could provide additional funding for these states and districts to hire university and district personnel to ramp up training of teachers—and, given the advantages of dual-language instruction, it would be advisable to place special emphasis on the production and recruitment of bilingual teachers.
- There is an urgent need for the federal and state governments to collect good data on how ELLs and immigrant students are faring. At present, we simply do not know. The performance of students who are *labeled* as Limited English Proficient looks appallingly bad, according to test scores, while those who manage to reclassify as English Proficient often outperform native speakers. However both of these findings are, in large part, statistical artifacts. Students classified as LEP are required to take tests in a language (English) that, by definition, they do not yet understand, while reclassified students have achieved that status by passing tests that would be difficult for many of the native English speakers to whom they are compared. Further, we know little about how these newly English proficient students do over the long term (though there are indications that many do not fare well as academic demands increase; Lillie et al. 2012; Slama 2014). It is critical that we monitor these students over time.
- A good way to begin writing a new chapter for ELL and immigrant students would be to return to Senator Yarborough's initial vision of a Bilingual Education Act that would incorporate not only the native language but also the *culture* of the children it served. Many of the assets these students have are embedded in the traditions they bring with them from home, which are often the very same characteristics that can propel them to deeper learning.
- Finally, it is also critical that the federal government develop an immigration policy that supports all students, rather than punishing some children for things that are beyond their control, and that respects immigrant families that have contributed to their communities and to the nation. States, too, can pass laws that protect students within their borders, such as policies that extend in-state college tuition rates to all residents, as well as providing all residents with access to driver's and professional licenses that allow them to be insured and pursue meaningful occupations and professions.

With these fundamentals in place, ELLs and immigrant students could take full advantage of the assets they bring to school and could share these assets with their native English-speaking peers. These students could even be a leading force in the movement for deeper learning.

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EDITORS' INTRODUCTION TO THE DEEPER LEARNING RESEARCH SERIES

In 2010, Jobs for the Future—with support from the Nellie Mae Education Foundation—launched the Students at the Center initiative, an effort to identify, synthesize, and share research findings on effective approaches to teaching and learning at the high school level.

The initiative began by commissioning a series of white papers on key topics in secondary schooling, such as student motivation and engagement, cognitive development, classroom assessment, educational technology, and mathematics and literacy instruction.

Together, these reports—collected in the edited volume *Anytime, Anywhere: Student-Centered Learning for Schools and Teachers*, published by Harvard Education Press in 2013—make a compelling case for what we call "student-centered" practices in the nation's high schools. Ours is not a prescriptive agenda; we don't claim that all classrooms must conform to a particular educational model. But we do argue, and the evidence strongly suggests, that most, if not all, students benefit when given ample opportunities to

- Participate in ambitious and rigorous instruction tailored to their individual needs and interests
- Advance to the next level, course, or grade based on demonstrations of their skills and content knowledge
- Learn outside of the school and the typical school day
- Take an active role in defining their own educational pathways

Students at the Center will continue to gather the latest research and synthesize key findings related to student engagement and agency, competency education, and other critical topics. Also, we have developed—and have made available at www.studentsatthecenter.org—a wealth of free, high-quality tools and resources designed to help educators implement student-centered practices in their classrooms, schools, and districts.

Further, and thanks to the generous support of The William and Flora Hewlett Foundation, Students at the Center has expanded its portfolio to include an additional and complementary strand of work.

The present paper is part of our new series of commissioned reports—the Deeper Learning Research Series—which aim not only to describe best practices in the nation's high schools but also to provoke much-needed debate about those schools' purposes and priorities.

In education circles, it is fast becoming commonplace to argue that in 21st century America, each and every student must aim for "college, career, and civic readiness." However, and as David Conley described in the first paper in this series, a large and growing body of empirical research shows that we are only just beginning to understand what "readiness" really means. Students' command of academic skills and content certainly matters, but so too does their ability to communicate effectively, to work well in teams, to solve complex problems, to persist in the face of challenges, and to monitor and direct their own learning—in short, the various kinds of knowledge and skills that have been grouped together under the banner of "deeper learning."

What does all of this mean for the future of secondary education? If "readiness" requires such ambitious and multi-dimensional kinds of teaching and learning, then what will it take to help students become genuinely prepared for life after high school, and what are the implications for policy and practice?

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Part 2: Deeper Learning for Students with Disabilities

INTRODUCTION

Currently, more than six million students with disabilities (comprising 13 percent of the total student population) attend elementary and secondary schools across the United States (National Center for Education Statistics 2013). The majority of them—close to four million—spend most of the school day in general education classes and most are capable of meeting the goals described by advocates of deeper learning. However, policy discussions about deeper learning have yet to focus serious attention on the kinds of support these students require to become truly prepared for college, careers, and civic life.

One complicating factor is that this population is enormously varied. For example, students with identified learning disabilities (more than 2 million) differ in important ways from those with speech and language impairments (1.5 million), autism (417,000), intellectual disabilities (over 400,000), emotional disturbances (nearly 400,000), or visual, hearing, and other impairments.

How can general education teachers provide opportunities for deeper learning to such a wide range of students? While we are mindful of the many ways in which individuals and groups of students can differ from one another, we also find strong support in the research literature for several core instructional practices that are feasible to implement in every classroom and that facilitate learning for students with many kinds of needs.

Further, we argue that the field of special education has important insights and expertise to share with the deeper learning movement in general.

As defined by The William and Flora Hewlett Foundation, deeper learning includes not just mastery of high-level academic content but also the development of capacities such as thinking critically, solving complex problems, working collaboratively, communicating effectively, and learning how to learn (Hewlett Foundation 2013). These are, it should be noted, learning goals that special education teachers and researchers have long prioritized. Indeed, a number of instructional strategies that are now considered mainstream were originally developed for students with disabilities. Supporters of deeper learning would no doubt endorse these strategies, such as the teaching of peer-mediated learning activities, self-regulation, and problem solving (Fuchs et al. 2008; Harris, Graham, & Mason 2006). And among special education's recommended practices are several that would likely prove just as beneficial to the wider student population, such as modifications to pacing, direct and systematic instruction paired with explicit practice, strategies to support motivation and attention, and increased instructional time, among others (Fuchs et al. 2008; Gersten et al. 2008; Vaughn et al. 2012).

In the following pages, we review previous efforts to promote better educational outcomes for students with disabilities. We also describe research-based instructional strategies that can support them and other struggling learners and the kinds of policies and local resources needed to ensure that all young people have meaningful opportunities to learn deeply and become truly prepared to succeed in college, careers, and civic life.

We hope that at the conclusion of this paper, readers will understand that when schools make use of readily available teaching strategies and supports, even students who face quite serious challenges (related to severe dyslexia, for example, or autism or severe physical challenges) can develop the full range of knowledge and skills associated with deeper learning. Finally, we hope also that readers will have increased confidence that all students stand to benefit from instructional practices known to be effective for students with disabilities.

ACCESS, EQUITY, AND OUTCOMES

Enacted in 1975, Public Law 94-142, the Education for All Handicapped Children's Act—later known as the Individuals with Disabilities Education Act (IDEA)—was meant to ensure that all children with disabilities have access to a free and appropriate public education and that their rights, and those of their parents, are adequately protected. Before the Act was passed, most public schools provided few if any services for students with disabilities, and many of these students dropped out of school as soon as they were legally permitted to do so.

P.L. 94-142's most important provisions are still in effect today. These include the requirements that students with disabilities be educated to the maximum extent possible with their non-disabled peers (often referred to as least restrictive environment) and that they be given an individualized educational program (IEP). Also required are due process provisions designed to ensure that students and their parents are kept fully informed about their IEP status and services and are given ample opportunities to participate in and/or challenge relevant decisions by their schools.

In theory, these due process provisions add up to a guarantee that all students identified with disabilities are eligible for an IEP and will receive appropriate supports. Schools are required to assess each child's specific needs and spell out their individual learning goals in writing in order to provide clear guidance to their parents and teachers as to appropriate instruction and classroom accommodations (e.g., giving students more time to take a test, permitting them to use a computer to take notes in class, and so on).

In reality, though, the results have been mixed. Around 1990, findings began to emerge from a Congressionally mandated study (the National Longitudinal Transition Study) that focused on the high school and post-school experiences of youth with disabilities. The data revealed a pattern of high dropout and course-failure rates and low rates of post-school employment and college enrollment (Wagner et al. 2005). In turn, many policymakers, researchers, and other stakeholders began to wonder whether the law might have erred by placing too much emphasis on monitoring schools' procedural compliance (e.g., documenting that students and parents were able to participate in the IEP conference) and doing too little to ensure that students were actually learning, passing their classes, and reaching other desired goals.

However, while the transition study was illuminating, there existed no reliable, ongoing sources of data as of the early 1990s that would enable states or the U.S. Department of Education to know precisely how well students with disabilities were doing in any given school or district, or whether their results were improving over time.

That changed dramatically over the subsequent years. First, in the mid-1990s the National Assessment of Educational Progress (NAEP) began to require that students with disabilities be included in its regular assessments. Second, the 1997 reauthorization of IDEA specified that students with disabilities must be included in state assessments and that the data must be reported publicly. And finally, the 2001 No Child Left Behind Act (NCLB) required that states, districts, and schools be held accountable for the performance of students with disabilities.

All together, these policy initiatives provided a forceful response to the earlier concern that IDEA had been too narrowly focused on procedural compliance. From this point on, the monitoring of schools' adherence to the law was to be combined with efforts to use both NAEP and state assessment data to monitor the actual performance of students with disabilities and to push schools to get better results. Among many in the field, these steps led to optimism that students with disabilities would begin to make real progress in their academic performance, both in K-12 education and beyond.

The Current Status of Students with Disabilities

According to the most recent NAEP (NCES 2013), 38-45 percent of students without disabilities performed at the proficient level or above in reading and mathematics in fourth and eighth grade, while a mere 8-17 percent of students with disabilities did so (excluding those students whose IEPs indicated that they would be unable to access the NAEP materials and participate in the assessment). In short, despite the policy reforms of the past two decades, and despite an improved knowledge base in the field of special education, achievement results for students with disabilities have remained virtually unchanged (Vaughn & Wanzek 2014).

Due to continuing concerns about poor outcomes for these students, the U.S. Department of Education's Office of Special Education Programs recently announced a new approach to state monitoring—Results Driven Accountability—requiring states to submit Systemic Improvement Plans (beginning in 2015) that detail precise steps they will take to improve the results of students with disabilities.

This could open the door for educators to implement proven practices for providing deeper learning opportunities for these students. As with NCLB, however, the challenge will be for states to show that they have the will, resources, and especially the *capacity* to do so.

On that score, many advocates have pointed out that for all of the recent efforts to improve services for students with disabilities, perhaps the most important piece of the puzzle—educators' capacity to provide those services—has not been adequately addressed. Not only must schools comply with IDEA, they argue, and not only must states monitor student progress and create incentives for schools to provide better services, but serious investments must also be devoted to professional development and organizational change. Unless teachers actually know how to provide effective instruction to students with disabilities, and unless schools create the conditions under which such instruction can take place, it is unlikely that compliance, monitoring, or incentivizing will impact student outcomes.

Toward Better Outcomes: Problems and Priorities

What are some of the challenges that will have to be overcome in order to ensure that students with disabilities have real opportunities to learn deeply?

For one thing, some educators and policymakers might not accept the premise that deeper learning goals are feasible for all students. Indeed, they might point to the fact that NAEP scores have remained low, even after two decades of legislation and reform, as evidence that large numbers of students with disabilities are simply not capable of meeting core academic standards.

We would argue, however, that a lack of improvement on NAEP scores does not provide a compelling reason to doubt these students' innate potential. If anything, those scores should be taken as an indication that many, if not most, students with disabilities continue to be held to low expectations and denied access to high-quality instruction and interventions. As recent findings suggest, when they are taught using well-established, effective instructional practices, students with disabilities do tend to make significant gains in their academic performance, particularly with respect to problem solving and knowledge application in content areas (i.e., key aspects of deeper learning) (Fuchs et al. 2015; Swanson et al. 2015).

For all of the recent efforts to improve services for students with disabilities, perhaps the most important piece of the puzzle—educators' capacity to provide those services—has not been adequately addressed.

Another challenge is that most schools are not, and never have been, organized to deliver the intensity of services that many of these students require. But here, too, lessons can be learned from schools that do achieve good results for students with disabilities. Perhaps most important, they tend to be relatively flexible in their daily schedules, allowing teachers to devote extra time to students when it seems important to do so. Further, such schools also tend to implement multi-tiered systems of support, meaning that they carefully monitor student performance in order to identify those who are struggling and might need more intensive intervention and instruction (NCII 2013a).

A third challenge is that few educators receive the kinds of preparation, professional learning, and support needed to promote effective instruction to students with disabilities, much less to help them learn deeply. For example, observational studies in elementary and secondary settings reveal that students with disabilities are frequently taught using methods that have no basis in research, are often excluded from participating in classroom learning activities (McIntosh et al. 1994), and are often given assignments that are so far beyond their reach that they become discouraged (Jones & Brownell 2014). By contrast, effective special educators provide instruction that is explicit, systematic, and often features considerable scaffolding and modeling from the teacher, designed to ensure that students gain a strong foundation in the given content and skills before they are expected to proceed on their own, without scaffolding.

A complicating factor is that while such explicit instruction is well-supported by empirical evidence, existing teacher evaluation systems may not value it, resulting in poor performance reviews for teachers who are actually quite skilled. Imagine, for example, that a teacher modifies a class writing assignment for a few students who struggle to process and organize written text—say, by requiring them to use a specific paragraph structure. This could be a wise and effective instructional strategy. However, a classroom observer might conclude that the teacher has singled out those students unfairly and denied them the chance to express themselves freely.

Teacher evaluation practices are very much in flux, at present, but whatever direction they take, it should be a priority for school leaders to ensure that those charged with observing and rating teachers are able to recognize when instruction has been tailored, appropriately, to meet the needs that many students with disabilities have for relatively explicit guidance.

Another challenge is that current accountability requirements can easily run counter to best practices in special education. One of NCLB's goals was to increase the percentage of the students in each subgroup (including students with disabilities) who score at the proficient level or better on state assessments. Yet many students with disabilities attend schools where this subgroup is too small to count toward Adequate Yearly Progress. Among the rest, many tend to score far below proficient on standardized tests, such that school leaders see it as futile to try to raise their scores to that threshold (Harr-Robins et al. 2012).

Finally, an additional problem with existing state tests is that they are designed to show only whether students are functioning at or close to grade level, which means that they include few items meant to assess lower-level knowledge and skills. For many students with disabilities, then, the tests show only what they *cannot* do. As to precisely what they do know, or exactly which content gives them trouble, state assessments provide very little information, leaving educators unsure how to adjust their instruction (Conley 2014).

» Effective special educators provide instruction that is explicit, systematic, and often features considerable scaffolding and modeling from the teacher.

» Quite a lot has been learned in recent years about effective teaching for students with disabilities, and, perhaps just as important, the evidence strongly suggests that when teachers implement these practices, all students benefit, typical learners included.

We believe that many of the challenges described in this section—lingering prejudices against students with disabilities, insufficient organizational flexibility, lack of attention to special needs when preparing and evaluating teachers, and poorly designed student assessment systems—can be resolved with research-based instruction.

Quite a lot has been learned in recent years about effective teaching for students with disabilities, and, perhaps just as important, the evidence strongly suggests that when teachers implement these practices, all students benefit, typical learners included.

EFFECTIVE INSTRUCTION FOR STUDENTS WITH DISABILITIES

To teachers, parents, or anybody else who interacts regularly with individuals identified as "students with disabilities," it is hard to ignore just how varied these students are in their skills, talents, interests, likes, dislikes, and on and on. The diversity that characterizes this population is truly extraordinary. How, then, can teachers provide instruction that meets everyone's learning needs?

A suggestion often given to both general and special educators is to *differentiate instruction for each learner*. However, while that is an appealing slogan, trying to implement it in practice—actually providing differentiated support to dozens of students at a time—would be enough to physically and psychologically exhaust even the most capable and motivated of teachers. Further, some students enrolled in general education classes exhibit learning challenges that are serious and persistent enough that they require additional time and attention, which they cannot receive if their teachers are stretched too thin already.

We argue, instead, for an approach that may be both more realistic and more effective: The professional repertoire of every classroom teacher can and should include a number of specific instructional approaches—designed for students with disabilities but often effective for students of all kinds—that will allow them to respond to most learning needs, while leaving them time to provide more intensive support as appropriate. (We outline these approaches below, and they are described at length in guides and resources offered by the National Center on Intensive Intervention; see Vaughn et al. 2009, and www.intensiveintervention.org)

Teaching Core Concepts in the Content Areas

Deeper learning was described by the National Research Council panel as "the process through which an individual becomes capable of taking what was learned in one situation and applying it to new situations (i.e., transfer)" (NRC 2012, p. 4).

In part, this suggests just how critical foundation skills in reading, writing, and mathematics are, since they transfer to every other part of the curriculum, allowing students to gain access to the more advanced content to be found in various academic domains. Thus for many students with disabilities, who may struggle with basic reading comprehension and arithmetic even into the secondary grades, the call for deeper learning implies a redoubling of efforts to teach those skills.

By no means, however, does this mean that students with disabilities should be limited to the study of foundation skills alone (Gersten et al. 2009). Like all other students, they should have every opportunity to engage cooperatively with others, to learn to persist at challenging

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tasks, to communicate effectively in many contexts, and to experience other aspects of deeper learning, including the study of advanced content and skills in the academic subject areas.

What must content-area teachers understand in order to ensure access to these kinds of deeper learning for all students? Most important, students with disabilities may need more time to learn and practice new skills, they may need to be given somewhat different tasks and assignments (e.g., the option to provide oral rather than written summaries, or to answer fewer problems on quizzes and tests), and they may need particular kinds of instruction.

For example, Vaughn and colleagues have developed a set of instructional practices that are specifically designed to help students with disabilities learn academic content in social studies and other secondary level subject areas (Vaughn et al. 2013; Vaughn et al. 2014). These include (a) guiding students in creating a **comprehension canopy** (identifying the field's big ideas and key concepts and, over time, explicitly connecting them to specific examples and cases), (b) **defining essential words**, meant to assist students in learning and using the academic vocabulary of the discipline, and (c) **team-based learning**, in which students work independently at first, to demonstrate comprehension, and then with team members to build, correct, and extend learning about content-area issues (Wanzek et al. 2014).

What does this look like in a classroom that enrolls a mix of "typical" students and students with disabilities? When introducing a unit, say on the Revolutionary War, the teacher will begin by posing a concrete but high-level question meant to frame classroom discussions (creating a comprehension canopy). For example:

> The colonists almost lost the war. General George Washington put it best when he said that American victory was "little short of a miracle." The British had the most powerful army in the world; it was made of professional soldiers who were disciplined and well trained. The Colonial Army was mostly made up of farmers and part-time soldiers. They were poorly paid, and few had formal training. How, then, did the colonists win the Revolutionary War?

Over the course of the unit, the teacher will return to this overarching question many times, asking students to refine and elaborate on it in increasingly sophisticated ways, both on their own and through group discussions and projects. Further, the teacher will make it a priority to identify and define key words that are critical to understanding the given content and which will likely appear in future readings and discussions.

Such practices may not seem so remarkable—content-area teachers often ask framing questions, highlight new words, and assign group work. However, research evidence strongly suggests that for many students with disabilities, it is critically important that the teacher provides such supports *deliberately, explicitly, and systematically*. According to randomized control group studies—so-called gold-standard research—when teachers make conscientious efforts to apply these practices, students with disabilities (and many without disabilities) see significant improvements in their content knowledge and academic vocabulary, outpacing the gains made by students in matched classes studying the same content (Swanson et al. 2015).

In short, subject-area instruction can be organized in ways that allow students to access meaningful content, grasp key concepts and vocabulary, and participate fully in high-level discussions and projects, even though they may struggle to

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read and comprehend the given material on their own. And while such scaffolding is especially helpful to students with disabilities, it tends to benefit all learners.

Further, it requires no extraordinary effort or extensive professional development for general education teachers to provide such support. Rather, as described below, the chief requirement is that they become aware of and are willing to make some accommodations for students who need more time, practice, and explicit guidance as they process new content and ideas.

Supporting Cognitive Processing

Recent research[1] into cognitive processing has done much to tease out precisely what is meant by the goal of "learning how to learn," which has been described as a key part of deeper learning. Specifically, studies have zeroed in on the roles that executive functioning and self-regulation—both of which can be successfully promoted by instruction—play in learning.

Many students with (and some without) disabilities struggle with one or more aspects of cognitive processing, including challenges with memory, attention, and the generation, selection, monitoring, and implementation of learning strategies. These executive functioning and self-regulatory mechanisms are, in effect, the "control processes" that manage goal direction for learning, and they overlap with other cognitive and behavioral processes, such as short-term memory, processing speed, and nonverbal reasoning.

For example, many students with short-term memory difficulties struggle with reading comprehension, particularly when asked by teachers to read and respond to texts immediately (Cain & Oakhill 2006; Cain et al. 2004; Pike et al. 2010). If it is hard to recall critical information from the sentences one has just read, as is often the case for such students, then it is doubly difficult to describe the main idea of the given paragraph, or multiple paragraphs (Swanson & O'Connor 2009; Swanson et al. 2009).

As recently as forty years ago, the prevailing view in the field was that such students had neurological damage that required treatment *before* they could begin to access and comprehend academic texts (Mann 1979). Thus, problems related to visual, auditory, and motor processing were assessed and treated in isolation, without being integrated with other learning goals.

However, this approach had limited value for students (Mann 1979), and newer evidence—drawing from far stronger theoretical frameworks and a robust empirical base (e.g., Pintrich 1995; Zimmerman 1989)—suggests that it is a mistake to provide isolated treatments for processing disorders (e.g., training children in auditory processing alone, divorced from any particular academic context; Lyon 1985; Mann 1979). Rather, current research on executive functions and self-regulation supports the use of systematic and explicit instructional routines that are integrated with the teaching of specific academic content and skills.

Consider, for example, language-processing difficulties that interfere with students' efforts to solve mathematical word problems. Rather than trying to teach those students how to process language more efficiently in general, it is far more effective to teach them concrete strategies *that help them solve specific math problems*—such as showing them that certain everyday words can be expressed in mathematical terms, or showing them how they can restate an algebraic problem in their own words, or showing them how they can break a problem down into a functional

[1] A growing research base associates executive functions with learning in reading (Booth, Boyle, & Kelly 2010; Cutting et al. 2009; Locascio et al. 2010; Souvignier & Mokhlesgerami 2006; Swanson & Howell 2001; Was & Woltz 2007), mathematics (Bull et al. 2008; Bull & Scerif 2001; Cirino 2011; Cirino et al. 2007; Cirino et al. 2002; Fuchs et al. 2010; Geary 2004; van der Sluis et al. 2007), and writing (Altemeier et al. 2008; Hooper et al. 2006; Hooper et al. 2002; Santangelo et al. 2007). Research also suggests that executive functions influence general academic outcomes (Barnett et al. 2008; Blair 2002; Blair & Razza 2007; Diamond et al. 2007).

sequence of steps (Fuchs et al. 2009)—and which they can then apply to new math problems.

Another practice that has been shown to be particularly effective for students with cognitive processing difficulties is to teach them to define specific learning goals and monitor their own progress over time, such as by keeping track of the number of word problems they are able to answer correctly or the number of math assignments they have completed.

Similarly, researchers have found that students can be taught to monitor their own comprehension while reading academic texts, becoming aware of any "breakdowns" in their understanding as soon as they occur. For example, teachers can instruct them to use "self talk" as they make their way through a history text or literary narrative (e.g., asking themselves, "What's happening here, in this chapter? How does this relate to what I know? What's confusing to me?") Often, it is helpful for teachers to model this strategy for students, giving them an out-loud demonstration of how they would talk themselves through the given text (see Figure 1). Likewise, teachers can assign students to underline important passages or to use tools such as mnemonic devices or graphic organizers, which have been found to be effective in helping students with disabilities to remember and understand what they are learning (Boyle 2010; Kim et al. 2004).

Overall, students who struggle with cognitive processing tend to trail behind their peers in measures of academic learning and motivation (Dembo & Eaton 2000; Krouse & Krouse 1981). When taught to use such self-regulatory practices, however, they often see significant improvements in school performance and self-efficacy (Zimmerman 1989; Zimmerman & Bandura 1994; Zimmerman et al. 1996; Zimmerman & Risemberg 1997).

Finally, researchers have found that students' capacity to self-regulate is also closely linked to their beliefs about

Figure 1. Thinking Out Loud: Modeling "Self-Talk"

For students who struggle to process and comprehend complex texts, it is often helpful to practice "self talk" while reading—pausing to ask themselves questions meant to check their own understanding and to remind themselves to use specific comprehension strategies.

A simple but highly effective instructional practice (one that all teachers should have in their repertoires) is to model this sort of self-talk out loud, showing students exactly how they can use it to improve their comprehension. For example, while looking over a text with a student, the teacher might say things like:

> With a difficult book like this, the first thing I do is to look for key words that the author uses. There are several here that confuse me—like "colonial" and "regiment"—so I am going to read the text around them to see if that gives me any clues as to what those words mean. And if that doesn't work, then I'll check the dictionary.
>
> Now that I know what these key words mean, I'm looking at the title, headings, and questions provided in the text to see if they tell me what this chapter is going to be about, and whether it relates to things I already know.
>
> After finishing this paragraph, I'm going to pause and make sure I understand everything. And if something seems confusing, then I'm going to go back and read it again, and then I'll try to restate it using my own words.
>
> And now that I've read this page, I'll stop and look over our questions for class discussion, to see if this part of the text can help me answer them.

In short, the teacher demonstrates a number of very specific things students can do to monitor and improve their comprehension while reading. Not every reader needs this kind of support—many students pick up these sorts of strategies on their own, without being coached. But for those who struggle to organize and process information, such explicit modeling can be extremely helpful.

» Students who struggle with cognitive processing often attribute their lack of academic success to stable, internal causes that they cannot change, while they attribute success to unpredictable factors, such as luck.

the causes of their academic failures and successes ("attribution" is the term most often used in the field of special education, though it has been described as "academic mindset" in discussions of deeper learning). Students who struggle with cognitive processing often attribute their lack of academic success to stable, internal causes that they cannot change, while they attribute success to unpredictable factors, such as luck. However, when provided with instruction designed to improve their self-regulation (e.g., when taught to use self-talk while reading academic texts, or to paraphrase complex ideas, or to use rereading as a way to "repair" their own misunderstandings), these students often come to recognize that their concrete actions can, in fact, have positive effects on their learning and performance (Berkeley et al. 2011; Borkowski et al. 1988; Carr & Borkowski 1989; Chan 1996; Miranda et al. 1997).

Intensifying Instruction

Regular classroom teachers, in addition to using instructional practices that support cognitive processing and helping students with disabilities access core academic content, should be prepared to provide more intensive support to students who need it.

This is not to suggest that all teachers should become experts in special education, or that they should devote a large portion of their time to helping just a small number of their students. But it is to argue that for some students, the strategies described above may not be enough, and they will require additional kinds of support.

EXPLICIT, SYSTEMATIC, AND RESPONSIVE INSTRUCTION

As described above, in the section on content-area instruction, a relatively low-cost way to intensify instruction is for educators to adopt a strongly teacher-centered approach at times, combining direct instruction with efforts to coach students in the use of research-based learning strategies. For many students with learning disabilities, significant gains have been associated with teaching that is explicit, systematic, and gives them ample opportunities to practice and receive targeted feedback on their skills (Swanson et al. 1999).

Explicit instruction refers to the overt teaching of the steps or processes necessary to accomplish a task or learn a given skill (Fuchs et al. 2003), and it often involves teacher modeling and demonstrations that illustrate precisely what students are expected to do. While this sort of highly directive approach may not be effective, or even appropriate, for all learners, research strongly suggests that for many students who struggle to plan, organize, and monitor their own learning, it often leads to improved mastery of both foundation skills and higher-level concepts (Baker et al. 2002; Biancarosa & Snow 2004; Gersten et al. 2009; Swanson 2000; Vaughn et al. 2000).

Systematic instruction refers to how effective teachers organize instruction into manageable pieces of learning and how they integrate these pieces into an overall learning goal. (For example, a teacher might break down a complex math problem into a number of smaller steps or processes and then bring them back together to solve the whole.) Further, it refers to teachers' efforts to introduce progressively more challenging tasks over time, to give students the scaffolding they need to complete those tasks successfully, and then to pull away that support gradually, as students become more accomplished and independent.

Also, in addition to providing explicit and systematic instruction, teachers can intensify the support they provide by giving students frequent opportunities to practice new skills and receive feedback on what they can do to improve. (For example, this could mean asking some students to

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get started on a class project early and to schedule a few brief check-ins in advance of the official due date to go over their work and suggest revisions.) According to an exhaustive review and synthesis of research in this area, teachers' feedback tends to have a significant influence on student outcomes, particularly when it is timely, relates clearly to students' goals, provides specific information as to how they can complete tasks more effectively, and allows teachers to monitor their progress closely (Hattie & Timperley 2007; Vaughn et al. 2000).

Finally, teachers should keep in mind that these students may already be discouraged—given that they were not helped by earlier, less-intensive kinds of support—and a fresh dose of discouragement could make it even harder for them to benefit from a new approach. Thus, teachers should consider modifying their classroom tasks and assignments in ways that will allow these students to experience some success. For example, they can make it a priority to give extremely clear instructions for each assignment, provide examples of the kind of work that will count as high quality, and provide graphics or other concrete illustrations of the concept to be learned.

TIME AND CLASS SIZE

The teaching practices described above do not necessarily require major new outlays of time or money. However, it would be misleading to suggest that there are no costs associated with providing more intensive supports to students with disabilities. Time, in particular, tends to be a precious commodity in schools, and choosing to spend more of it with particular students often means spending less on others.

Whatever local educators decide, they should keep in mind that scheduling decisions tend to be particularly important to students with disabilities. Increasing instructional time has been shown to be one of the most effective ways to help such students learn advanced content and skills (Torgesen 2000), giving them a chance to master cognitively complex tasks—such as reading high-level material and connecting ideas across texts—that they simply could not process over the course of a 45-minute lesson.

Intensifying instruction in this way could mean providing a given intervention every day, or even twice a day, say, morning and afternoon, rather than three times a week, for example (Wanzek & Vaughn 2008). Or, depending on students' capacities for attention, it could mean providing them instruction in longer stretches, or increasing the duration of the intervention (e.g., from fifteen weeks to thirty weeks). To be sure, that extra time does have to come from somewhere—never an easy decision—but for this student population, it does tend to be time well spent.

More expensive but equally important to consider is the option of reducing teacher-student ratios. Small group size can be a powerful factor in improving outcomes for students with disabilities (Elbaum et al. 1999), since it gives teachers far more leeway to provide the kinds of responsive instruction—including frequent opportunities for practice and feedback—that research shows to be effective for students who require intensive support.

» Increasing instructional time has been shown to be one of the most effective ways to help such students learn advanced content and skills

Over forty years of research suggests that if students have several and persistent learning needs, and if they show little or no improvement despite teachers' efforts to intensify instruction, they can probably benefit from what is referred to as clinical or experimental teaching, or "data-based individualization."

Differentiating When Appropriate: Data-Based Individualization

As we noted above, it would be impractical for general education teachers to provide truly differentiated instruction to every student. However, at some times, and for some students with disabilities, such instruction is absolutely critical.

Over forty years of research suggests that if students have several and persistent learning needs, and if they show little or no improvement despite teachers' efforts to intensify instruction, they can probably benefit from what is referred to as clinical or experimental teaching, or "data-based individualization" (DBI), a term that highlights the role that systematic assessment plays in the process (NCII, 2013b; Deno & Mirkin, 1977; Fuchs et al., 1984).

DBI is typically implemented within a multi-tiered system of support (such as Response to Intervention), which is to say that schools tend to offer it only after they have tried to help the given student in other ways. If regular core instruction (known as Tier 1) was not successful, and if the student did not benefit from a secondary (Tier 2) intervention—assuming it was a proven approach, implemented with fidelity—then the DBI process kicks in.

First, the teacher tries increasing the intensity of the instruction (e.g., spending more time with the student). Next, the teacher monitors the student's progress to determine whether intensifying the instruction had an impact. Third, the school uses diagnostic assessments to identify the student's specific skill deficits and develop a hypothesis about effective ways to modify instruction. Fourth, the teacher implements an adapted program (which may include some of the teaching strategies described in the preceding sections). And finally, the teacher continues to monitor and collect data on the student's progress, to see whether the approach is working or should be modified further.

This careful integration of assessment and intervention can meet the needs of individual students that have not been helped by the kinds of supports described earlier. But how expensive is it to provide such services? Typically, schools train and rely upon their regular classroom teachers to provide effective Tier 2 interventions, monitor student progress, and, when students continue to struggle, perform diagnostic assessments to pinpoint their needs. In turn, when the DBI process reveals a need for more intensive interventions, students usually are referred to special education teachers, reading specialists, and other specialized staff and/or instructional aids. In short, DBI can be quite labor intensive, and most schools would be hard-pressed to offer it to more than a very small percentage of their students at a time. As is true of other means of intensifying instruction, however, research suggests that when implemented well, it is associated with improved outcomes for students.

Assistive Technologies for Students with Disabilities

The scope of this paper does not include discussion of new technology-based approaches to special education. It is important to acknowledge, though, that such technologies—from cochlear implants to text-to-speech software to large-print word processors—have been enormously beneficial already, and there is great optimism in the field about the development of new resources for students with disabilities.

For background on the research in this area, emerging tools, and principles of effective technology-based instruction, a great place to begin is: www.cast.org.

And for a related discussion of how practices developed for students with disabilities in fact benefit all learners and can be enhanced by technology, please see Students at the Center's 2102 report: Curricular Opportunities in the Digital Age.

CONSIDERATIONS FOR INTEGRATING DEEPER LEARNING

The practices described above have been shown to promote effective instruction for students with significant learning problems and disabilities in general education classrooms. When practiced thoughtfully and consistently, they can help these students to gain access to deeper learning. They can also be expensive—such as when schools choose to reduce class sizes or offer additional, specialized services—but in many cases they are not, requiring only that classroom teachers learn how and when to implement a number of specific, proven instructional practices.

With these considerations in mind, we offer a number of overarching recommendations for local educators and policymakers at the local and state levels:

- Make it known to educational leaders, teachers, parents, and other community members that empirical research strongly suggests that students with disabilities and other struggling learners can—when given appropriate instructional strategies and tiered levels of instructional and behavioral support—succeed in learning deeply and meeting rigorous achievement standards.
- Make sure that *all* students—including those with disabilities—have access to high-quality instruction in the core content areas.
- Make sure that general education teachers' professional standards, licensure requirements, and job descriptions assign them clear responsibility to provide effective instruction to students with disabilities.
- Ensure that teachers' pre- and in-service programs equip them to provide the kinds of intensive, evidence-based interventions that can help students with disabilities to access deeper learning.
- Ensure that state policies require schools to provide tiered levels of instructional and behavioral supports.
- Ensure that state policies create incentives for all teachers to share responsibility for providing effective instruction and supports to students with disabilities.
- Ensure that state and local educator evaluation systems reward—or at least do not penalize—teachers who use appropriate, evidence-based instructional strategies when working with students who have disabilities.
- Ensure that states implement college and career readiness assessments that address the full range of deeper learning competencies and include accommodations that enable students with disabilities to show what they know and can do.

We are confident that if states and districts integrate these recommendations with the practices described above, all students will benefit as a result. Deeper learning can and should be the goal for *every* young person.