High-Need Schools

Changing the Dialogue

Devin Thornburg and
Anne M. Mungai (Eds.)

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LIESBETH BREEK

FOREWORD

This book is about school and educational reforms in high-need schools from a national as well as international perspective. In this foreword I will talk about my "personal reform" in relation to our national education reform in the Netherlands in recent decades. Parallel reforms have taken place in such countries as the United States, Scandinavia, England, and Australia.

My career as a teacher of French language and literature began in the 1990s. Education, specifically working with students aged twelve to nineteen, was my calling. I have garnered experience at secondary schools, in both wealthy and poor neighborhoods, in and around the capital city of Amsterdam. These schools are distinguished by their educational vision, the competence of the management, and the technological and facilities resources they offer pupils and teachers alike.

In the first ten years of my career in education I taught classes that emphasized cultural transmission, learning to form opinions and basic thinking skills. Sparked by literary movements, we had spirited class discussions about the difference between naturalism and existentialism. Is a person's fate sealed at birth or is the ability to make choices and define oneself through them a fundamental right of human beings?

At the time, in teaching my subject—the French language—I focused primarily on fostering personal development and reflecting on traditions. School instills values, and as such plays a vital role in society. It is precisely here that the strength of my profession lies. What motivates me as a teacher? Offering tools to young people on their way to adulthood. To help them celebrate life, to give them the courage to be resilient in the world.

Throughout my career in education I have been guided by the question "What do you want the children we are teaching in our schools to be like as adults?" (Ritchhard, 2015, p. 16) In my early days as a teacher I judged each student on his or her unique value and in no way, on no level, did I occupy myself with comparisons between them.

The past twenty years, however, have seen a gradual shift: increasingly, educational outcomes have found their way onto ranked lists at various levels: school, national, international. The success of a school, and with it the role of the teacher, was measured by where it stood on these lists. The dropping PISA scores in our country became the cause célèbre of our educational policymakers. School management teams, as a result, took to using such terms as "results-focused work," "evidence-based teaching," "accountability," "closing the gap," and "efficiency." In

principle I am not opposed to testing: Some tests, such as the one given to students at the conclusion of elementary school that determined which secondary school level they would be placed in, proved their worth; they ensured that higher education was accessible to all levels of society, not just to the children of well-educated, well-to-do parents.

But in recent decades, education has increasingly become a production line of test scores, protocols, ranked lists—at the expense of its role in student development. The constant pressure to produce quantifiable results in this oppressive education climate began to make me uneasy. I sensed that I was drifting away from my original motivation for becoming a teacher, which was to chaperone young people into their personhood and help them develop a capacity for independent thought. But it wasn't only in myself that I detected a diminished focus on creativity and critical thinking; I saw it in my colleagues as well. In this new educational order, literature-based programs were also marginalized in favor of the standardized curriculum.

We were drifting away from the essential questions: What constitutes good education, what do we want to achieve and what is the purpose of education? The pedagogical dimension of thinking of education as an existential process was receding into the background. With teachers, education shifted increasingly in the direction of teaching to the test, which in students was inextricably linked to "learning to" the test. Those things that were not tested were, by virtue of the fact, not important. This top-down accountability, I was certain, caused more harm than good. It was during this disenchanting period that I became acquainted with the work of education pedagogist Professor Gert Biesta, senior lecturer at Brunel University, London.

His books *The Beautiful Risk of Education* (Biesta, 2014) and *Good Education in an Age of Measurement* (Biesta, 2010) spoke to my feeling of dissatisfaction and opened my eyes to what had gradually happened to me as a teacher. Reading his work felt like a liberation. Professor Biesta divides education into three domains.

The *qualification* domain refers to knowledge and skills (specific, broad and general).

The *subjectification* domain refers to the process of becoming a subject (responsible, compassionate).

The *socialization* domain concerns the many ways in which education makes us part of social, cultural and political "orders."

Good teachers continually ask themselves what they want to achieve in each of these domains and manage to strike a balance between them. The primary questions should be: What do you want your pupils to achieve in each domain? How do you as a teacher maintain a meaningful balance between the domains?

Obviously the emphasis will fluctuate. Just before the national exams it will be more on the domain of qualification. During a period of social unrest, as after a terrorist attack, the domain of subjectification will be more central. But in the end, meaningful and good instruction always seeks an equilibrium between the three domains. Our education was out of balance and tended to be reduced to a single domain, the qualification domain, because the national government maintained a

one-sided perspective on the quantifiable. And yet I am convinced that the most crucial outcomes of education cannot always be measured.

And what about my personal educational reform in relation to the national reforms described by Dick van der Wateren in the narrative that follows mine in this foreword?

For years I allowed myself to be increasingly backed into the qualification domain, at the expense of socialization and subjectification. If nothing else, education is about making knowledge and skills one's own, let there be no doubt about that. But meaningful education is about more than the objective transfer of knowledge—it is about opening experiences and meanings, and for many pupils, school is the only place that offers such pivotal experiences. Professor Biesta rightly refers to school as a practice arena for society; a place between home and the wide world that allows for practice. The purpose of education is to make students feel at home in the world. That realm that contains the essence of education—literature, for instance, with its transformative powers—is being crushed by an overemphasis on measurement. And it is precisely this transformative power that defies measurement. In a time in which terrorist attacks and social unrest make up a part of our daily spectrum, it is the fundamental and necessary job of education to reflect, together with students, on who we are, where we stand and what makes up our collective memory.

Let teachers continually ask themselves what they want to reach with their teaching and schooling, and demand this professional space for themselves. Teachers are essential; they are at the heart of education. The meeting between pupil and teacher is crucial. It is through the dialogue between teacher and student that a child's development is initiated, that the child gains access to the world.

You can only exercise the profession of teacher if you care about your pupils. And this love of children always goes hand in hand with a love of the world. It is through dialogue—a request made of the pupil, a teacher offering ways of thinking through subject matter, a sharing of experiences—that a child and the world are brought together. If this dialogue takes the form of a shared intellectual undertaking, a pact between teacher and student, then it will help students to emerge in the world with a grown-up sensibility, a sense of responsibility, of empathy.

I hope that our schooling teaches students to develop perspective, to stand in another's shoes, brings them in contact with that which lies outside themselves. I hope that our education helps them bear responsibility, *want to* bear responsibility, for what they will be bringing into the world.

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DICK VAN DER WATEREN

FOREWORD

This book appeals to me in multiple ways: first, in the way it addresses the problems faced by high-need schools; and second, in its strong focus on teachers' agency to find solutions for these problems.

In this contribution I wish to make two points that grew out of the idea of a "flipped education system" (Evers & Kneyber, 2015). The first is about developing a new curriculum. The second has to do with evaluating what is going on in schools, accounting for the results of putting the curriculum into practice. I argue that in both processes teachers should take the lead.

In her foreword to this book, Liesbeth Breek, following Gert Biesta (2014), indicated that good education strives for a balance between three domains—qualification, socialization and subjectification—which makes education a multidimensional effort. In Biesta's work, education and democracy are strongly linked (see also Biesta 2011 & Biesta et al. 2006, 2009). Biesta states that the goal of good education is to help young people grow up to become independent, critical and responsible adults in a democratic society.

Good education, then, is more than just teaching knowledge and skills. While those are necessary for adults to function in a democracy, good education is also about values and how to develop from a self-centered person to a person who cares for others and for the world.

This is precisely the challenge for teachers in high-need schools. They, even more than teachers in "normal" schools, need to be not just competent but good, or *virtuoso*. Biesta (2015), in a paper on teacher education, defines *educational virtuosity* as:

"Embodied educational wisdom: the embodied ability to make wise educational judgements about what is to be done; that is, about what is educationally desirable."

While it goes without saying that teachers need to be competent, undue focus on competence undermines teachers' professional agency with its insistence on performance, standards measurement and control (Biesta, 2015), a point made in this book as well. Moreover, as Biesta underscores:

"Competencies are always orientated toward the past and the present; it is, after all, only possible to describe what a teacher needs to be competent at in relation to situations that are already known. Yet teaching is in a very fundamental sense always open to the future."

Therefore, a virtuoso teacher needs to develop her or his judgement "about what is an educationally desirable course of action in *this* concrete situation, with *these*

concrete students at *this* particular stage in their educational trajectory" (Biesta, 2015). This book offers various examples of when and where judgement and educational virtuosity are required in high-need schools.

With these ideas in mind, let us turn to the question of how to engage in flipping the system—"changing education from the ground up" (Kneyber & Evers 2015)—in our daily teaching practice.

My first point is that teachers should be responsible for the design of the curriculum. The content of our education, the "why" and the "what," should not be left entirely to policymakers or schoolbook publishers, as is the case in most schools in the Netherlands. The publication of a pioneering volume of papers by Dutch educators Kneyber and Evers in 2013—forerunner of the international volume *Flip the System* (Kneyber & Evers 2015)—had a great impact on Dutch education policy. Most parties in the House of Representatives adopted ideas developed in the book, notably the concept that teachers should have a greater say in and responsibility for what goes on in schools, a concept known as *collective autonomy*.

In 2014, a nationwide discussion was started by our Secretary of Education, Culture and Science to develop a national curriculum for primary and secondary education. The discussion resulted in a report, *Our Education 2032* (in Dutch: *Ons Onderwijs 2032*). The report's title refers to children who are currently starting primary school. These youngsters will finish secondary school in 2032 and either find a job or embark upon higher education. The report includes many of the elements I discussed at the start of this paper, e.g. a stronger focus on socialization and subjectification, but the discussion about the new curriculum is not yet over.

A group of teachers (myself included) strongly advocate giving teachers the lead in curriculum design. First we need to develop a clear vision of an education that prepares young people for their role in a complex world and looks beyond the necessary knowledge and skills. Second, we need to end the division between responsibilities for educational content and method, the "what" and the "how." What we teach (primarily decided at state and government levels) immediately has consequences for how we teach (primarily decided at the local level) and vice versa. Because they know what works, teachers should direct the process of curriculum development and not leave that to "experts" and policymakers.

A long-term vision and core curriculum, therefore, need to be developed in the coming years, supervised by a national teachers' council representing the various teacher networks. Teacher design teams are responsible for the development and implementation of the curriculum in their own schools. Regular feedback travels between local teams, the teacher council and elsewhere in the network. We are still working to realize this structure and it may be years before the system operates in all of our schools. In the meantime, there are many similar initiatives on a local and regional level that are remarkably successful.

My second point is directly related to the first. It is the question of how to ensure that local and national education goals are met, with a healthy balance between those

results that can be measured (e.g. reading, writing, math) and those that cannot (e.g. responsibility, creativity, caring, a critical attitude), and a focus on trust rather than accountability. Again, teachers should make up the lead.

Ideally, school self-evaluation will be integrated with curriculum development. Evaluation of progress and results is a natural part of the work by teacher design and development teams. This model provides an answer, also to the problem of teacher professionalisation usually following a "top-down" approach (identified in the chapter "Teachers in High-Need School Reform" in this book). Teacher teams involved in developing the curriculum and regularly assessing their progress will quite naturally feel the need for their own professional development and require very little encouragement by school leaders. They will be able to indicate exactly what kind of courses and workshops are helpful at the time and whether or not they need outside expertise.

It will be clear by now that integration of curriculum development and the evaluation of education results at the local level can be instrumental in teacher professionalisation. At the same time, since they are party in the discussion about the curriculum and the evaluation of school results, students will benefit.

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CARL MIRRA

1. THE EMPEROR'S NEW CLOTHES ARE ACCOUNTING STRAITJACKETS

A Very Brief History of Federal School Reform and the Rise of Accountability, 1965–2015

> It would be extremely naïve to expect the dominant classes to develop a type of education that would enable subordinate classes to perceive social injustices critically.
>
> (Freire, 1985, p. 102)

The year 2015 marks the fiftieth anniversary of the Elementary and Secondary Education Act (ESEA) of 1965. Bold legislation followed President Lyndon Baines Johnson's (LBJ) well-known 1964 State of the Union Address, where the former schoolteacher declared an "unconditional war on poverty" as part of his Great Society mandates. Johnson pledged to improve the quality of teachers and schools, while bemoaning that some 20 percent of children lived in poverty. Many landmark and valuable bills were passed at the time, but poverty and inequity persists in the U.S. In 1964, 23 percent of children lived in poverty; in 2012, it was nearly 22 percent (Children's Defense Fund, 2014). Equally staggering is that nearly half of all schoolchildren in the U.S. received reduced-price or free lunch in 2011, and a majority of public schoolchildren in Southern states are from low-income families (Layton, 2013). Kozol's *Savage Inequalities* (1991) provides anecdotal accounts of the daily distress faced by America's poorest schoolchildren that bring this data to life. He tells of underprivileged children attending school hungry; sitting in class for extended periods with toothaches; and eating in cafeterias where floors are soaked in sewage. While the U.S. has the second worst child-poverty rates in the industrialized world, it boasts the most billionaires and largest prison population (Children's Defense Fund, 2014).

It should be noted at the outset that this structural inequality and wealth disparity are among the reasons why federal reform efforts fall short. Many of these programs fail to address the root causes of poverty, and remain largely disconnected from the lives of the poor. This is not to say school reform is without merit, but the larger forces driving school reform do little to genuinely address these structural impediments.

However, the purpose of this chapter is to (very) briefly sketch the major educational reform efforts of the federal government over the past half-century. These efforts gradually increased what critics call punitive testing and accountability

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as a means to improve schools and close the achievement gap. The achievement gap refers to the discrepancy in student performance and graduation rates based on race, ethnicity, and socioeconomic status. The chapter title borrows from the California Federation of Teachers' description of the rising federal accountability movement in its early stages as an "accounting straitjacket," indicating continuity between past and current concerns over testing and tabulating (Kirst, 1975, p. 536). The brief history of the federal movement toward increased educational accountability presented here helps to illustrate that its lack of success, as Amrein-Beardsley so aptly puts it, is "due in part to a lack of accountability to its own history" (Amrein-Beardsley, 2014, p. 16). Many of the chapters in this book examine local strategies for reform. This chapter explores the wider context in which those efforts occur.

REFORM OR TRANSFORM?

Current reform efforts, when placed in a broader historical context, reveal a trend of top-down reform (federal and state bodies that sit outside and above local districts) in standards-based accountability. The accountability movement, what some call test-based or performance-based accountability, centers on standardized testing as the most significant barometer of student and school achievement. Performance-based reform has been incremental since at least 1965, but now dominates U.S. schooling. It has become the guiding narrative, the "big idea" that steers almost all reform efforts in the nation. Testing, rather than curriculum and teaching, has become an end in itself (Ravitch, 2010, p. 12). Any school reform effort worth pursuing must be a long-term endeavor, and one devoted to undermining the prevailing orthodoxy about testing, "value-added" models, and the system that promotes these forms of social control.

To avoid misunderstanding: I am not deriding standards and all forms of testing. All effective teachers must establish high standards. The problem is *standardization*, narrow evaluation measures, and the invalid application of testing results. The current fixation with standardized testing as the almost sole vehicle of closing the achievement gap and evaluating student growth evolved from earlier, failed reforms.

Part of the problem is what Elmore calls "cargo-cult reform". Too often, reform initiatives, and teacher behavior, are devoid of a sense of agency, while lacking clear connections to what impacts student learning (Elmore, 2002a). Federal education policy, while sometimes well-intentioned, exacerbates this problem. It also frustrates viable school reform movements. There are many documented alternative reform movements that are not centered on unproven standardization and testing (Warren & Mapp, 2011; Apple & Beane, 2007). Warren and Mapp have outlined community organizing strategies that empower parents, students, and local citizens to couple school reform with wider community social-justice actions. Examples of these bottom-up efforts include the Northwest Bronx Community and Clergy Coalition in New York City; the Logan Square Neighborhood Association in Chicago; Southern Echo in the Mississippi Delta; Padres y Jovenes Unidos in Denver; One LA-IAF

in Los Angeles; and People Acting in Community Together (PACT) in San Jose, California. These groups help to build organizing traditions rather than piecemeal reforms (Warren & Mapp, 2011). Such movements focus on bringing agency to parents and students as well as teachers and administrators, or proceed from the "inside out," as Tyack and Cuban put it. If recent history teaches us anything, it teaches us that successful reform starts with local needs and concerns, and "enlists the support of teachers as key actors in reform" (Tyack & Cuban, 1995, p. 10).

Under federal and state education reform, school personnel rarely feel empowered to change or impact the organizational structure in which they work (Elmore, 2002, p. 24). The "grammar of schooling," or long-standing organizational forms that shape U.S. education, is one major culprit in upholding these structures (Tyack & Cuban, 1995, p. 85). Again, equally culpable are top-down reform efforts that erode teacher and community agency. Without a priority on genuine human agency, schools are doomed to pursue a cycle of "cargo cult" reform, engaged in "symbolic activities" that do more to satisfy legislative mandates than to help disenfranchised and disempowered students (Elmore, 2002a, pp. 22–25).

Even the involvement of teachers, students, and parents is inadequate if it does not aspire to produce lasting, sustainable change that addresses issues of centuries-long economic and educational inequity. Educators associated with critical pedagogy have tirelessly argued that school systems reproduce the inequities of the existing system. Federal, state, and elite foundations often provide the funding for school reform efforts. The allocation of funds is frequently attached to a predetermined agenda, and one formulated by powerful politicians or wealthy corporate executives who have little, if any, incentive to transform existing inequities. Hence, it is suggested here that school reform efforts linked to top-down funding and mandates are at risk of reproducing the very problems they seek to ameliorate. That five decades of school reform have failed to end poverty or close the achievement gap warrants deeper scrutiny regarding current reform efforts. This is not to say that top-down approaches funded by large bureaucratic entities are always troublesome.[1] Schools and individual students may indeed experience sporadic success. A healthy democracy starts with equal access to a quality education; but opportunity and access to quality schooling remain an elusive dream for America's poorest citizens.

ESEA 1965: MOVING TOWARD ACCOUNTABILITY

The Elementary and Secondary Education Act of 1965 was the federal government's first major step toward its substantial involvement in school reform. Its defining feature was Title I, which offered federal aid to "educationally deprived children." The other titles dealt with libraries and textbooks; support for local initiatives; research and more funding for state departments of education, the latter of which was included in part to dispel charges of overreach by the federal government (Jeffrey, 1978). Consider that the Constitution does not allow the federal government to dictate curricular reform (Ravitch, 2010). Sensitive to debates over federal intervention in

U.S. politics, the ESEA authors acknowledged that the federal government was not permitted to "exercise any direction, supervision, or control over the curriculum, program of instruction, administration…or selection of any instructional materials in any educational institution" (Thomas & Brady, 2005, p. 52). Indeed, ESEA's unsteady implementation was largely left to states and local districts.

At the federal level, the Supreme Court has influenced school policy through landmark decisions such as *Brown v. Board of Education* (1954). Congress also produces legislation, including education laws. Congressional representatives serve on behalf of populations of a particular state. It is fair to say that federal and state education policies are inseparable. The federal government frequently issues guidelines, but the specificity of mandates is normally left to the states, which are best understood as what researchers call subnational entities (New York State Education Department, 2009; Sunderman, 2010). This does not mean that the federal government never passes legislation independent of state desires. The ESEA of 1965 was largely a federal effort designed to fix schools at the state level that were seen as inadequately addressing the needs of disadvantaged students.

The turbulence of the 1960s thrust politicians into action. A massive civil rights movement, urban rebellions and the seemingly sudden emergence of antiestablishment politics spread across the nation. LBJ's talk of fighting poverty and fostering equality is inseparable from these bottom-up actions. The Civil Rights Movement motivated LBJ and Congress to pass progressive legislation such as the ESEA, but the government's goal was to reform and conserve the existing system, not to transform it. On the other hand, local authorities frequently spurned federal laws, especially in the South. Denying voting rights and access to education were among the many abuses of the day. This contradictory and contentious context animated some of the debates over the implementation of ESEA. Federal reformers, unsettled by widespread protest against the "system," sought to halt some of the country's worst abuses, but they did not seek to altogether transform the system that created these problems in the first place (Zinn, 1965).

The original ESEA was passed in a Democratic-majority Congress. Many politicians, but hardly all, agreed that the federal government needed to allocate funds for underprivileged students. Senator Robert F. Kennedy feared that after schools received funding, they might mishandle it and make little progress. Schools themselves contributed to inequity, according to Kennedy. Charges of corruption, mismanagement, and money going to suburban districts that had few low-income students would confirm at least some of Kennedy's worries. "Putting money into a school system which itself created the problem," Kennedy bemoaned, was wasteful and misguided. The ESEA would prove ineffective "unless there is a meaningful… program…which is tested and checked" (Jeffrey, 1978, p. 85).

The iconic Senator proposed an evaluation system whereby funding would be tied to measurable results. Kennedy declared that he would not back the bill unless an evaluation provision was included. "I wonder," Kennedy ruminated, if accountability could be obtained "through some testing system" (McLaughlin,

1974, p. 3). Commissioner of Education Francis Keppel, in what was then called the U.S. Office of Education, agreed that an accountability mandate was needed (McLaughlin, 1974, p. 4). The new laws compelled school districts to inform state departments of education regarding student achievement. What differed from earlier federal education plans, the *Harvard Education Letter* reports, was that "this provision called for the public display and disclosure of information which schoolmen knew could be used against them in the enforcement of new priorities" (Murphy, 1971, p. 55).

Kennedy did not hesitate to promote federal intervention to *reform* local schools. He was more reluctant to use federal power to protect Civil Rights workers during his time as U.S. Attorney General from 1961–64. Organizations such as the Student Nonviolent Coordinating Committee (SNCC) embraced transformative politics. They also worked courageously throughout the segregated South, having been subjected to brutality and outright murder. Civil Rights workers pleaded with the Justice Department for protection against corrupt local police, who often were the perpetrators of violence against Black citizens for simply asserting their basic rights. Kennedy's lukewarm, inconsistent response to protect African-Americans/Black people from racist attacks led to a lawsuit, *Moses v. Kennedy*, in 1963 (Zinn, 1965). That same year, a House of Representatives subcommittee drafted a bill that included a section to bolster federal authority to protect against law enforcement violence in the South. Kennedy opposed that provision, and it was dropped (Zinn, 1964). The point here is not to take a back-handed swipe at Kennedy or to present him as entirely responsible for educational accountability, but to demonstrate how his stance is paradigmatic of federal school reformers: it is safe to intervene where the system can be conserved, but not in circumstances that may unsettle or transform the status quo.

Kennedy and the reformers did play a salient part in advancing the federal role in education and the accountability movement. Shepard (2008) suggests that Kennedy's intention was "almost identical to present-day accountability rhetoric" (Ryan & Shepard, pp. 26–27). Perhaps, but the accountability measures envisioned in the mid-to-late 1960s were more "low stakes" insofar as they did not compel states to use standardized exams or follow singular reporting criteria (McLaughlin, 1974, p. 18). Data decisions about individual teachers and students were not mandated, unlike today. And Kennedy's concerns about the mismanagement of funds were not unfounded. The lack of Congressional supervision led to money being used for students who were not among those identified in Title I of the law (Thomas & Brady, 2005).

Of special importance is that legislators concerned about "wasting" Title I money had their initial efforts extended by the rather bureaucratic-sounding Planning Programming Budget System (PPBS) that was adopted by several states in the years following the original ESEA. Then-U.S. Defense Secretary Robert McNamara was enamored with PPBS, a statistical analysis that permitted him to control defense spending. McNamara implemented it across the Department of

Defense in his quest to quantify the military's actions. McNamara and his policy "whiz kids" formulated planning decisions largely based on numerical data. In 1965, when the Vietnam War was escalating but not yet the disaster it is remembered as today, LBJ instructed civilian government agencies to implement PPBS. Gradually, several state education agencies required PPBS of school districts (Hughes, 1975, p. 58; Wright, 2012; Shapley, n.d.). The *Phi Delta Kappan* journal reported that the PPBS movement was a "national wave" of accountability, but its many flaws led educators in an "effort to restrain [its] momentum" (Kirst, 1975, p. 537; Hughes, 1975, p. 58).

PPBS was very much a top-down system of evaluation. A 1968 paper prepared for the Subcommittee on National Security and International Operations in the U.S. Senate explains that PPBS is "a splendid tool to help top management make decisions." It "works best for an aggressive master," and in the absence of a master PPBS will fail to produce results (Schelling, 1968, p. 27). While foreign policy analysts championed PPBS, it was met with resistance by many educators. California, for instance, was engaged in PPBS pilot programs in 1968, and by 1972 it was voted down. Republican assemblyman Robert H. Burke was one of the more strident opponents in the lead-up to the debate over PPBS in California. His office published a report on PPBS, and in overstated tones bemoans:

> This organizational system has guidelines which have to be followed, methods for reporting progress and accomplishments…It appears that only those tools which are considered useful to the "elite" remain…this instrument of thought control and societal management to further their own aims, this entire concept of "educational management" takes on a dangerous dimension…The entire system has become a "people control mechanism" (Burke, 1971, p. 8; Thompson, 2014).

It was in this context that the California Federation of Teachers called the accountability movement an "accounting straitjacket," having indicated that they too felt controlled by an "aggressive master" (Kirk, 1975; Hughes, 1975). That the ESEA allowed for the adoption of technocratic, militarized instruments to measure educational outcomes might be exaggerated, but it is still a bit alarming. The logical, or perhaps illogical, extension of war manager McNamara's statistical analysis was the policy of attrition and body counts in Vietnam. Tabulating and recording the number of enemy killed was seen as a strategy to help win the war. It instead contributed to atrocities and abuses in what is now a national blemish; hard data and numbers provided the "illusion of control," but ultimately became a "doctrine of atrocity" (Appy, 1993, pp. 157–159). Has the attempt to control and measure schools, teachers, and students since 1965 led to "body counts" of the nation's most vulnerable children? As one of the planners of ESEA sums up the legislation, it "began crudely the educational accountability movement with its emphasis on measuring…in the absence of tested experimental models" (Halperin, 1975, p. 8). Legislation in 1965 then set in motion the movement that now dominates education policy.

As the U.S. tumbled deeper into the Vietnam conflict, the government's attention focused more on the war against Communism than the war on poverty. In fact, up to 1969 ESEA spending was under $1.7 billion each year or "about the cost of ten days in Vietnam" (Halperin, 1975, p. 5).

The political strife of the 1960s eventually faded along with the end of the Vietnam War in 1975, but in its aftermath demands for civil rights and equality continued to shape some legislative efforts. Federal involvement in education continued as several noteworthy laws and court decisions appeared. In 1974, the Supreme Court ruled against school busing for the purpose of desegregation in *Milliken v. Bradley*, delivering a blow to school integration. *Lau v. Nichols* (1974), however, provided equal educational rights to non-English-speaking students under the "equal protection" clause of the 14th Amendment to the U.S. Constitution that informed earlier civil rights actions. The Equal Educational Opportunities Act (1974) called for, well, equal educational opportunity, having prohibited discrimination based on "race, color, sex or national origin" (Weise & Garcia, 1998, p. 4). In 1975 the Education for All Handicapped Children Act, later called the Individuals with Disabilities Act, declared free education for all regardless of ability. It also provided for the now well-known "least restrictive environment" and Individual Education Plan (IEP) for all children. Meanwhile, the ESEA was reapproved in 1974. It devoted $25 million yearly for "planning and evaluation," which "moved American education a giant step down the path of…evaluation" (Halperin, 1975, p. 8). In sum, supporters of the ESEA of 1965 could argue that it was successful insofar as it focused the nation's attention on disadvantaged children, while temporarily thwarting anxieties about federal encroachment in education. Consider that as the 1970s came to a close, President Carter was able to establish the U.S. Department of Education (USDOE) with a budget of $14 billion and a staff of 18,000 (Weisman, 1979).

A NATION AT RISK? INCREASING TESTS TO REDUCE THE RISK

A weary public, however, remained jaded by the Vietnam War and the Nixon-era Watergate debacle, all of which eroded public confidence in the federal government. Carter's failure to get American hostages released from Iran in 1979 added to this unease. President Ronald Reagan's cries of "big government" still resonated with the population. Reagan sought to roll back what was useful in ESEA: a concern for the poor and federal responsibility to intervene on behalf of the most vulnerable. The former Hollywood star wished to dismantle the USDOE, reduce federal spending in this area, and increase state control over education (New York State Education Department, 2009).

Reagan's nominal reduction of federal interference found expression in the 1981 reauthorization of the ESEA. Reagan targeted Title I funding in his overarching goal to reduce domestic spending. Public pressure persuaded Congress to maintain some Title I spending initiatives, but many aid programs were indeed consolidated (New York State Education Department, 2009). More importantly, the act eliminated

the specific evaluation criteria outlined under Title I. States and local education agencies were still required to conduct evaluation reports (Darling-Hammond & Marks, 1983). The accountability movement briefly stumbled, but did not fall during Reagan's first term.

Performance-based reform may have briefly faltered in terms of legislation in 1981. But it received a major rhetorical boost from the National Commission on Education, which was established by then-Secretary of Education Terrell H. Bell. The group published a belligerent report, *A Nation at Risk: The Imperative for Educational Reform* (1983). It was a scathing "indictment" of U.S. schools that complained of declining student test scores that eroded the nation's economic competitiveness. With a dash of Cold War rhetorical flair, the report warned that student achievement scores in 1983 were lower than in the late 1950s when the Soviets launched *Sputnik*. "If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today," the authors bemoaned, it would be taken as "an act of war" (National Commission on Excellence in Education, 1983, p. 5). Where the U.S. was once losing the space "war," it was now lagging behind on the education front, which amounted to an "unthinking, unilateral educational disarmament" (p. 5).

The report formulated a series of recommendations to combat this seemingly dreadful moment. One was that "standardized tests of achievement…should be administered at major transition points from one level of schooling to another" (p. 28). These exams "should be administered as part of a nationwide…system of State and local standardized tests," the commission asserted. The report added that "teacher salaries should be increased…and performance-based" (p. 30).

Ironically, the commission occasionally echoed the same concerns as those who drafted the ESEA of 1965. "We believe the Federal Government's role includes several functions…protecting constitutional rights and civil rights for students and school personnel" (p. 33). It went so far as to promote a vision of federal activism in education, but with caution. The federal government "has the primary responsibility to identify the national interest in education." Furthermore, it "must provide the leadership to ensure the Nation's…resources are marshaled" to improve education (p. 33). Both federal "intervention" and a concern for civil rights found their way into the report, indicating that these issues were not easily dismissed.

President Reagan urged Americans to listen to the Commission's "findings and recommendations" and expressed his gratitude for its "courage" and "vision." Some Commission members were "flabbergasted," however, when Reagan concluded that the commission's "call for an end to Federal intrusion is consistent with our task of redefining the Federal role in education" (Reagan, 1983; Fiske, 1983, p. B15). As many scholars have pointed out, Reagan was likely using the moment to broadcast his anti-big government platform. Whatever his motive, *A Nation at Risk* was another stride toward standardized testing as reform. Despite its appearance during the Reagan administration, the report favored a heightened role of the federal government in education, albeit in "cooperation with states" (p. 32).

Equally noteworthy was the Congressional reauthorization of the ESEA in 1981. In 1987, the Hawkins-Stafford School Improvements amended ESEA to provide Title I funding, while calling for performance-based measures (New York State Education Department, 2009). Cosponsored by Augustus Hawkins, who presided over a largely minority Los Angeles community, the amendments were a direct call to address the achievement gap (Cohen & Moffit, p. 114). Thomas and Brady (2005) remind us that Title I was modified in 1988 to include standardized testing as a requirement to illustrate student achievement.

The following year George H. Bush entered the White House, and he arranged a National Education Summit in Charlottesville, Virginia in 1989. The summit brought together the President and the National Governors Association to formulate education policy. Arkansas governor Bill Clinton served as the cochair of the association's task force on education. The president and governors announced their goals in *The New York Times*, articulating both the original impetus for the ESEA and a move toward testing-based accountability. "Federal funds," the officials wrote, "are directed particularly toward services for young people at risk." Mindful of latent fears over federal control, the governors assured that "state and local laws…control what is taught, and how." However, "neither federal nor state and local laws…focus sufficiently on results." Federal and state authorities need the ability to waive some requirements "in return for greater accountability" (Statement by the President and Governors, 1989; New York State Education Department, 2009).

Democrat Bill Clinton was elected president in 1992 and resumed the standards and evaluation goals articulated during his work with President G.H. Bush's summit. Goals 2000: Educate America Act was approved in 1994, and articulated many of the same aims as the 1989 summit. The goals were ambitious and far-reaching. As for its role in testing, Goals 2000 established individual state standards and evaluation systems to measure the success of those standards. ESEA was also reauthorized at this time along with The Improving America's School Act (Thomas & Brady, 2005, p. 54). Title I now "required states to create performance-based accountability systems for schools" (Elmore, 2002, p. 32).

And Clinton's 1997 State of the Union address, where he outlined his principles for education, again extended the standards- and test-based accountability theme. The first principle entailed "a national crusade for standards:"

> Every state and school must shape the curriculum to reflect these standards… To help schools meet the standards and measure their progress, we will lead an effort over the next two years to develop national tests of student achievement in reading and math. …Every state should adopt high national standards, and by 1999, every state should test every 4th grader in reading and every 8th grader in math to make sure these standards are met. (Clinton, 1997)

Testing-based accountability gained momentum in the 1980s and 1990s. It is convenient for some to blame Republicans for this trend, but liberal politicians were equally responsible.

It is no surprise, then, that Clinton's call for increased testing surged in 2002 when newly elected Republican President George W. Bush signed the No Child Left Behind Act (NCLB) into law. Many researchers consider it the most wide-reaching federal reform of ESEA since 1965. The legislation mandated "increased accountability" by requiring states to administer annual standardized tests for all students in grades 3 through 8 in reading and math. The scores on these exams were posted in report cards to assess a school's efficacy in meeting the standards, what was called Annual Yearly Progress (AYP) (New York State Education Department, 2009). NCLB demanded that scores be disaggregated by disability, ethnicity, poverty, etc. Failure to meet AYP in any area meant sanctions, from a detailed school improvement plan to restructuring (including the firing of teachers and administrators) to cuts in funding.

This menacing approach to reform did little to improve learning, placed economic burdens on schools, and narrowed the curriculum. Guisbond, Neill, and Schaeffer (2012) argue that NCLB failed to achieve most of its goals, especially in terms of increased test scores, but also in the areas of school choice and dropout rates. NCLB's primary and all-encompassing demand that all students eventually reach proficiency in reading and math not only failed, but it reduced the notion of school reform to test scores. A systematic trend analysis evaluated the effectiveness of NCLB in improving student learning. It used the National Assessment of Education Progress (NAEP) exams that are administered to a sizeable representative sample of 4th and 8th graders across the country. The report concluded that:

> NCLB did not have a significant impact on improving reading and math achievement across the nation…the national average achievement remains flat in reading and grows in math at the same pace after NCLB as before. In grade 4 math, there was a temporary improvement right after NCLB, but it was followed by a return to the pre-reform growth rate…[and] has not helped the nation…narrow the achievement gap. (Lee, 2006, pp. 10–11)

While student gains under NCLB are difficult to demonstrate, the Government Accountability Office (GAO) documented the economic strain associated with this underfunded mandate. It figured that states would need to spend up to $5.3 billion to meet the NCLB directives (Guisbond, Neill, & Schaeffer, 2012). As for impact on instruction, consider that schools spent, and continue to spend, a considerable amount of time administering tests that take away from instructional time as well as approximately 20 to 60 days engaged in test preparation. It is reasonable to add that NCLB intensified student anxiety about testing, increasing the emotional strain on children. Studies have demonstrated that some disadvantaged students spent what amounted to a full year simply taking exams over a twelve-year period (Guisbond, Neill, & Schaeffer, 2012, pp. 4–5).

NCLB's lack of success provided a rhetorical platform for educational reform after Barack Obama catapulted into the White House in 2009. Newly appointed Secretary of Education Arne Duncan made a pitch for the reauthorization of

the ESEA only months after the administration took office. The act was due for reauthorization in 2007 and awaits reapproval as of this writing. Revision was needed, the administration insisted, because NCLB did not advocate "high" learning standards and "unfairly labeled many schools as failures even when they were making real progress." NCLB focused too heavily on "absolute test scores," Duncan declared, "rather than student growth" (Duncan, 2009).

Here we see the administration asserting its goal to replace absolute test scores with an even more controversial assessment system based on growth in student achievement. This approach utilizes Value Added Models (VAM), or statistical tools that supposedly isolate and measure a teacher's impact on student learning. Related to this testing was the desire to create college- and career-ready standards, which was an indirect way of saying the Common Core State Standards (CCSS), to avoid charges of improper federal encroachment in education.

To persuade states to adopt these priorities, the USDOE launched the Race to the Top (RTTT) competitive grants in 2009 that set aside $4.35 billion for education as part of the American Recovery and Reinvestment Act (ARRA). The "voluntary" grant process required states to cover four domains for this "funding opportunity." The areas included:

- standards and assessments or "adopting" internationally benchmarked standards to ensure "college and career readiness";
- new data systems to measure student success, while evaluating teachers and principals;
- increasing teacher effectiveness or what is called "workforce development"; and
- improving the lowest-achieving schools (U.S. Department of Education, 2009, p. 59836; Manna & Ryan, 2011).

RTTT was introduced during a harsh economic recession, which influenced cash-hungry states to accept the administration's reform goals. Joanne Weiss, former director of RTTP, acknowledges that the "profound budgetary challenge[s]" for states constituted a "significant inducement" for them to embrace the reforms (Weiss, 2015, p. 57). In fact, "many states…changed laws" and "updated statutes regarding teacher and principal evaluation" to gain funding eligibility (p. 59). In classic top-down fashion, the grant "forced alignment among…the governor, the chief state school officer, and the president of the state board of education" (p. 59). It did not, however, require any agreement from local school administrators or teacher union presidents. It appears that this tactic ensured that local, district-level concerns would not disrupt the grant process.

Two of RTTT's "assurance areas" that generated intense criticism were the call for common core (read: national) standards and evaluation of teachers using student growth measures. With respect to the Common Core, it was released in June 2010 by the National Governors Association and Council of Chief State Officers. The CCSS outlined standards for ELA and math in grades K-12. Note that the NCLB condition that all students in grades 3 through 8 be tested in math and reading remained under the

new plan. Its punishments were eased, but new forms of testing-based accountability emerged. As of this writing, most states have adopted the Common Core.

Critics charged that states were coerced into adopting standards that were not any better than many existing state standards. Those states that agreed to the Common Core were awarded extra points in the RTTT application. A careful analysis conducted by the Congressional Research Service observed that the Education Department "instructed reviewers to assign 'high points' to [states] indicating participation in a consortium that was developing the required standards." In effect, high points were reserved for those who went with the Common Core. As the Congressional Research Service explains, "aside from the Common Core State Standards, there was no other set of standards being developed by a consortium of states that included enough states to meet the criteria to receive 'high' points" (Skinner & Feder, 2014, pp. 8–13). A USDOE commissioned study puts it bluntly, "Some Recovery Act programs…have more prescriptive requirements. In these cases, states had to take specified actions, such as adoption of the CCSS" (Webber, Troppe, Milanowski, Gutmann, Reisner, & Goertz, 2014, xiii).

RTTT pushed the adoption of the Common Core, and value-added measures as well. Grant applications needed to address teachers' impact on student growth. "A particularly important system feature," a USDOE-sponsored study explains, "is the capacity to link teacher and student data, which is necessary to evaluate educator effectiveness and support performance-based compensation systems" (Webber et al., 2014, p. xvi). This notion of improving teacher efficacy extended NCLB's "highly effective teacher" provision, but was equally troubling, as we shall see.

When it came time to ease some of the more restrictive elements of NCLB, Duncan again used it as an opportunity to promote the Common Core and value-added models. Duncan (2009) sent a letter to state education leaders to the effect that the ESEA allowed him to issue waivers from some of NCLB's restrictive mandates, such as the requirement that all students achieve proficiency in reading and math by 2014. In return for flexibility regarding NCLB requirements, states would need to "improve educational outcomes for all students," following ongoing reform efforts "such as transitioning to college and career ready standards and assessments…and evaluating…teacher and principal effectiveness" (Duncan, 2011). And the USDOE report, *A Blueprint for Change: The Reauthorization of the Elementary and Secondary Education Act*, reminded states that funding would continue to be tied to implementing the administration's plan. "To better measure how states, districts, schools, principals and teachers are educating students," the report indicates, "funds will be available only to states that are implementing assessments based on college- and career-ready standards that are common to a significant number of states" (pp. 11–12).

In sum, RTTT and the Obama administration's reform efforts rely on coercive measures, or "incentives," that have made national standards and testing-based accountability the defining features of federal school reform. In fact, RTTT included $361 million for the development of assessments aligned with the Common Core, led by the Partnership for Assessment and Readiness for College and Careers (PARCC)

and SMARTER Balanced Assessment Consortium. More than 40 states have teamed up with these assessment associations (Onosko, 2011, pp. 1–2).

HOLDING ACCOUNTABILITY ACCOUNTABLE: THE PITFALLS OF TESTING

We have already seen how standardized tests lead to an excessive amount of instructional time spent on test preparation as well as time spent for the administration of tests. High-stakes testing is an invalid system of measurement, which is why the American Psychological Association's policy on testing forbids making significant decisions about a student on the basis of a single test (Elmore, 2002). And state-level standardized testing over the past three decades has failed to eradicate poverty or erase the achievement gap (Amrein-Beardsley, 2014).

The Obama administration nonetheless elevated the role of testing, particularly in terms of teacher evaluation. The USDOE promotes evidence of "student growth," normally measured through value-added models. Value-added models (VAMs) refer to statistical models devised to measure a teacher's impact on student learning using standardized exams while attempting to control for variables. There are student-growth models that are not properly labeled VAMs, but they often suffer from the same validity problems as VAMs, and sometimes are worse as there are fewer controls in many of these models. It should be said, however, that value-added models are useful in certain circumstances, such as when a school performs under state averages yet may have made greater gains in student learning than a comparison group (Amrein-Beardsley, 2008, p. 65). These models remain "notoriously imprecise" (Ballou & Springer, 2015).

Attention to VAM swelled in the mid-2000s as it became clear that NCLB's Annual Yearly Progress measures were inadequate, and provided little useful data in terms of individual student achievement or teacher effectiveness. The USDOE consequently funded pilot studies to incorporate VAM into existing state evaluation systems (Amrein-Beardsley, 2008, p. 65). Under the Obama administration, the experimentation with VAMs was transformed into its widespread adoption by states for the purpose of determining teacher pay, promotion, or dismissal.

There are many problems with making substantial decisions based on VAMs. For one thing, the American Statistical Association notes that VAMs normally evaluate correlation, not causation (American Statistical Association, 2014). That is, simply because two things are related, such as teacher impact on student learning, it does not prove that one caused the other. There are too many variables, what researchers call confounding factors, to state that VAMs are a reliable measure of the "teacher effect" on student learning (Lomax & Kuenzi, 2012, pp. 7–10). Lomax et al. identify "variables" to include categories such as socioeconomic status, race/ethnicity, English language learners, and special education classification. While VAM models *attempt* to control for these factors, they cannot control for the related issues of parental level of education, summer learning gain/loss, tutoring, and still undiscovered covariates (Lomax & Kuenzi, 2012, pp. 7–10).

Worse yet is the persistent problem of missing data that further undermines VAMs' reliability (Braun, 2005). State education agencies considered inadequate data systems a "major challenge" in the implementation of value-added estimates (Ballou & Springer, 2015, p. 79). Existing regression models deal with this data issue, but have not been properly analyzed in the context of VAM (Lomax & Kuenzi, 2012, pp. 7–10). Kane, Staiger and Geppert (2012) have also shown that one-time factors alone, such as flu outbreak or a noisy environment, can lead to large variations in test scores. As a result, the American Statistical Association (2014) concludes that "VAM scores themselves have large standard errors…[and] make ranking unstable, even under the best scenarios for modeling." And the Congressional Research Service cautions the lack of reliability in VAMs "may not produce results that are stable enough to support decisions regarding promotion, compensation, tenure and dismissal" (Lomax & Kuenzi, 2012, p. 14). A study commissioned by the USDOE concludes:

> Value-added estimates for teacher-level analyses are subject to a considerable degree of random error when based on the amount of data that are typically used in practice for estimation…error rates…will be about 26 percent if three years of data are used for estimation. This means that with a typical performance measurement system, more than 1 in 4 teachers who are truly average will be erroneously identified for special treatment. (Schochet & Chiang, 2010, p. 35)

In addition to the wide error rates in VAM, test score changes are largely the result of the aforementioned factors that occur outside the school. "The majority of the variation in test scores," the American Statistical Association explains, "is attributable to factors outside of the teacher's control" (American Statistical Association, 2014). A USDOE-sponsored study concludes that "more than 90 percent of the variation in student gain scores is due to variation in *student-level factors* that are not under control of the teacher" (Schochet & Chiang, 2010).

What all this reveals is that teacher intervention as measured under testing systems accounts for only a small portion of a student's achievement. This is not to say that this teacher percentage is unimportant. It is, however, inappropriate for legislation to mandate student growth models since most research demonstrates that it is a biased and invalid model in its current form. That controversial value-added models can only measure a small portion of student growth, yet are used to make weighty decisions about schools and teachers is unwarranted.

Leading researchers have documented alternative models for the evaluation of teacher effectiveness, and it does not require repetition here (Amrein-Beardsley, 2014; Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012).

SUMMARY

Of course, the reform policies and legislation outlined above are far more complex than the brief introductory overview offered in this chapter. I emphasized the

evolution of testing-based accountability as it has become the central narrative of school reform. Accountability and testing have a long trajectory and the current manifestation is a product of previous reform efforts. Other related, and often overlapping, developments concerning the expansion of charter schools and the privatization of schooling deserve equal attention but are beyond the scope of this brief overview. Federal reform has rightly brought attention to the needs of at-risk youth over the past half-century, yet it pursued and continues to pursue misguided policies for the elimination of inequity. School reform is an easy way for politicians to talk about inequality; it allows them to avoid authentic discussions regarding the redistribution of wealth. The point of this chapter is that standards (standardization) and testing have evolved over time, across administrations and political parties. My aim is not to dismiss the federal government's role in educational policy-making, but demonstrate that it and its "subnational" entities represent a top-down approach that simply seeks to reform the existing system, rather than dig deep into the U.S. structures of inequality. It is not a new message, but one that continues to be denied and evaded and therefore is worthy of repetition.

Alternatives to heavy-handed reform are far more modest today than in 1965, where this chapter started. In that day policy-makers responded to widespread political activism through reform legislation. However, ordinary people who saw the limitations of top-down legislation engaged in local, experimental projects. One of the most poignant examples of an organizing tradition for transformation rather than simple change is the 1964 Mississippi Freedom Schools. The Freedom Summer campaign was organized by several civil rights groups under the banner of the Council of Federated Organizations (COFO). It was an outgrowth of the 1964 Freedom Summer campaign associated with the Student Nonviolent Coordinating Committee. The Freedom Schools attracted roughly 1,000 volunteers, mostly White, Northern college students, to Mississippi. The overarching purpose was to register disenfranchised Blacks and develop alternative schools as an escape from the failed, segregated public education system. The organizers had hoped that 1,000 students would register. By July 26, 1964, approximately 2,135 students enrolled in 41 Freedom Schools across the state. In early June, 575 African-American youngsters had already signed up in Hattiesburg alone (Mirra, 2010).

Freedom Schools offered a practical example of what is commonly dismissed as a utopian dream. Teachers and students lived together in a community with a shared vision. Decisions often were made by consensus or "horizontally"; participatory democracy was favored over top-down decision-making. The schools integrated activism and academics, combining voter registration drives with history, math, and even readings of James Joyce. In short, Freedom Schools operated outside the existing structures with the goal of facilitating organizing traditions and decision-making practices among the students, parents, and concerned citizens (Mirra, 2010). As noted, Warren and Mapp have recovered some similar organizing efforts today, and if school reform in a democracy means anything, it should mean people making decisions about those things which regulate their lives.

In closing, proponents and opponents of standardized testing frame it as a civil rights issue. During the first day of the Freedom Schools, three civil rights workers went missing: Mickey Schwerner, James Chaney, and Andrew Goodman. When the bodies were discovered months later, one comrade offered the following eulogy. "In a violent army, when your comrade goes down, you pick up their gun. In a non-violent army, when your comrade goes down, you pick up their dream." Their dream of equitable, fair schools is today still a dream (Mirra, 2010). Countless local school reformers fight to make it a reality. Will tests and accompanying punishments provide protection for our most marginalized citizens? Will the reality of an equitable society come to fruition through a test score?

NOTE

[1] I am not arguing against federal involvement in education altogether, but large "vertical" efforts often overlook local needs and tend to reproduce the system that designs them. At the same time, top-down mandates can sometimes reduce local suffering. For example, authentic national health care and federal grants for free lunches are certainly worthy and useful efforts. My critique is that the types of school reforms implemented from the federal government, and what researchers call subnational entities, are unlikely to achieve their stated goals.

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2. INNOVATION IN SCHOOL REFORM

Technology and the Impact on Curriculum and Teaching

This chapter addresses the important role that technology has played in school reform work over two decades in two realms: the use of technology to support the reform itself, and technological advances for curriculum and classroom instruction and the research on student achievement. The viability of such innovation in high-need, low-achieving schools is reviewed with some recommendations for technology's reform in reform initiatives.

Over the past twenty years we have seen growth in both the use of computerized technologies and the support of educational reform efforts in high-need, low-achieving schools, yet the question remains, "Is it enough?" Is the technology divide growing in our schools and as a result, will reform efforts continue to fail as our children fall further behind in apartheid settings (Kozol, 2006)? Is there subliminal intent to maintain the class system that feeds lower-level "drill and kill" technology skills to children in high-need, low-achieving schools while feeding higher-level cognitive challenges to children in more affluent and oftentimes racially segregated schools? The issues of equity, not solely in providing technology as a resource, but in the ways in which machines are utilized to support instruction, beg the question of whether computers and other computerized technologies have spearheaded educational reform or whether they have been used to maintain the status quo of segregation and classism within our public school systems.

As witnessed during my tenure as an educator, serving as a change agent in-high need, low-achieving schools,[1] the infusion of computer-based technology purported to support effective instruction has followed a different path from other technologies such as radio programming, television broadcasts, filmstrips, and videos. These technologies also were purported to revolutionize schools, but failed to achieve permanency as instructional supports in classrooms. The poem "Antiquated," written anonymously in 1920, bore witness to the zeal with which these technologies were embraced as portents of the future teacher-less school environment (Cuban, 1986).

"Antiquated"

Mr. Edison says
That the radio will supplant the teacher.
Already one may learn languages by means of Victrola records.

D. Thornburg & A. M. Mungai (Eds.), High-Need Schools, 19–36.

The moving picture will visualize
What the radio fails to get across.
Teachers will be relegated to the backwoods,
With fire-horses,
And long-haired women;
Or, perhaps shown in museums.
Education will become a matter
Of pressing the button.
Perhaps I can get a position at the switchboard.

(Anonymous Teacher, 1920)

The history of the personal computer and related computerized technologies as integral tools considered part of school-reform efforts has been dramatically different from that of its predecessors.

Although I can remember introducing Personal Electronic Transactor (PET) Disk Operating System (DOS) based computers into classrooms thirty years ago to reinforce basic skills, these early tools were novelty worksheets on a screen, requiring more effort than intended to decipher and negotiate successfully (Edwards, 2015; The Commodore PET, 2011; Anderson, L., circa 1980). Although politely named "drill and practice" instead of the vernacular "drill and kill" programs, the software closely modeled the core binary code of computer programming, asking students to respond either 1 or 0, on or off, and yes or no (Cohen, 1987; Ascher, 1996; Niederhauser & Stoddart, 2001). The software generated Pavlovian responses rooted in lower-level questioning and failed to stimulate higher-order thinking skills (Marzano & Kendall, 2006; Munzanmaier & Rubin, 2013).

The past twenty years have seen the advent of the PC with Windows and access to the World Wide Web (Internet), adding entirely new dimensions to the ways in which instructional reform could be supported by technology. This chapter provides insights into the ways in which technology was intended to be used as a means to support educational reform in working with students, parents, teachers, and administrators, along with some recommendations for the future.

SUPPORTING TEACHERS AND STUDENTS—THE COMPUTER IN EVERY CLASSROOM

As Windows-based operating systems replaced the DOS-based systems, a computer was placed in every classroom as a symbol of technology infusion. In the district calendar, pictures of children seated in front of computers proudly showcased the initiative (Hempstead Public Schools, 2004; Edwards, 2015). A document signed by the then-superintendent of schools concluded with, "O.K., computers in each classroom" as the directive for action and a symbol of reform, change, and innovation (Watkins,1994; David, 1991). Getting the hardware was providing a tool, but the information provided by the machine's software and the way in which the information was used needed to be more closely examined. Cuban (1986) proposed

that this was analogous to purchasing a book but not being concerned about its contents and how the contents were to be used, or getting a radio set and not noting the program played or how it supported instruction.

Students were given the opportunity to "play" computer games that reinforced basic literacy and numeracy skills. Unfortunately, at this point in many classrooms, computer time was seen as a reward for completing "real" classwork and not as true instructional time (Yelland, 1999; Pillar, 1992). Yelland (1999) described this use of the computer as an add-on to a curriculum "composed of activities that act as a reward for finishing traditional work ahead of schedule, usually with software that reinforces content in a mechanistic way." The computer was essentially seen as a novel behavioral-management tool as opposed to an essential resource for instruction.

Many instructional programs were worksheets on a screen with little innovation; however, some programs demonstrated true creativity that fully engaged young users in the teaching and learning process. This was a move away from the Pavlovian-based software toward a more constructivist approach to supporting learning. The software required greater degrees of higher-order thinking skills with the potential to bolster true learning. Teachers prone to using a didactic approach to instruction appeared to use the "drill and kill"-designed software, while those who were more constructivist in their methodologies used more open-ended software (Russell, 1989; Lovell & Phillips, 2009; Sheingold & Tucker, 1990; Yelland, 1999; Niederhauser & Stoddart, 2001). *Reader Rabbit* and *Writer Rabbit* took young children through a series of interactive screens that fostered a solid foundation for English language arts (ELA) development. *The Oregon Trail* reinforced map skills, ELA, and history as children imagined themselves as pioneers moving Westward as settlers in the United States of America. *Where in the World is Carmen San Diego?* fostered the use of higher-order thinking skills while in the role of a detective. The goal was to hunt down a crime suspect while using map skills, historical facts, drawing conclusions, inferencing, and logic. Software programs with a constructivist design were not used as often in classrooms because they frequently required more attention to the student and the interactive thought patterns. As Niederhauser and Stoddart noted (2001), "Computer technology in and of itself does not embody a specific pedagogical orientation.… Interactive, exploratory and tool software can support teachers as they implement reform-oriented constructivist practices." In many classrooms, interaction with computer-based learning was still regarded as "play", and not as a tool to encourage critical thinking (Papert, 1980); but the role of computers was set to change as legislation signed into place by President Clinton, the Educate America Act – Goals 2000, began to impact reform efforts.

In New York, the *New Compact for Learning* reform effort had provided a curriculum framework for mathematics, science, and technology that sought to change the landscape of how learning took place in classrooms. The New York State Education Department published the following, "By focusing on curriculum, teaching and learning, and assessment, and by identifying how technology can help to support change toward a restructured classroom, we can take advantage of

this powerful support vehicle (the computer). I would assert that the failure of our schools to be successful in preparing our students to function as world citizens, and our failure to effectively use technology to change teaching and learning are closely interrelated" (Radlick, 1994). The passage of Goals 2000 added federal leverage and proverbial "teeth" to the reform efforts already begun at the state and local levels (Schwartz & Robinson, 2000).

The New York State Education Department Board of Cooperative Educational Services (BOCES) opened a Division of Computer and Communications Technology with a full-time supervisor and support staff who focused on support for hardware purchase, installation and maintenance; software review, selection, purchase, and installation; as well as professional development for the effective integration of computers with instruction (Burton, 1994). Conferences with workshops on the effective integration of technology in classrooms were in demand, such as the 29th Annual Conference of the New York State Association for Computers and Technologies in Education, Thresholds '94. As the conference chair stated, "…we are indeed on the threshold of a new age, one that will dramatically change the learning place we call school (Huff, 1994)." The New York State Education Department partnered with the New York State United Teachers union to sponsor the fourteenth annual statewide conference entitled Teaching and Learning- Vision becoming Reality at which the keynote speaker, Michael Cohen, was Senior Advisor to the Secretary of Education and manager of the Goals 2000 program for the United States Department of Education (NYSED & NYSUT, 1994). Federal, state, and union partnerships were clearly evident and focused on the use of the computer as a means of educational reform.

Information about statewide public-television broadcasts such as *Learning by Design: The Technology Connection* were distributed via the *School Executive's Bulletin,* a publication of the Office of Elementary, Middle, Secondary and Continuing Education at the New York State Education Department, and Technology Long Range Plans were written to identify funding streams to purchase computers and software, while inventorying their placement in classrooms or labs (Vaughn-Shavuo, 1994). Every effort was made to use grant funding to support the reform since the general fund was unable to do so in this "high-need" district. Although the plan was thorough in its detail, it failed to address the need for professional development in constructivist approaches in working with these classroom tools. In fact, the tidal wave of the accountability movement of Goals 2000 redirected the focus of the role of the computer. The move was toward more didactic approaches in support of assessment and accountability through computer assisted instruction (CAI) (Ascher, 1996; Pillar, 1992; Cohen, 1987).

Computers moved from isolated stand-alones in a center within classrooms and into labs that became a focus for CAI. Many hours were spent in a deliberate effort to build skills necessary to close the achievement gap between Whites and non-White students in schools by having students interact with software that would adjust skill

level based upon responses registered (Ascher, 1996; Pillar, 1992; Cohen, 1987; Seltzer, 1971).

Diagnostic assessments provided by the software were administered to all students, and as an academic intervention service, every low-functioning student was scheduled for CAI lab support on an A-B schedule, meaning every other day the student went into the lab. Most districts used this model as it dovetailed with the scheduling needs of pairing a class with another A-B class that was scheduled, such as Home and Careers or Physical Education. Students' efforts were tracked diligently to log the time on task and the units completed in the student-directed instruction. A teaching assistant would circulate to provide some measure of support for students, but for the most part the computer was the teacher, with software adjusting for the errors made and patiently providing students with material determined to be instructionally appropriate (Seltzer, 1971; Suppes, 1967).

Business leaders became the role models, seen as expert in designing reform efforts for academic growth, particularly in high-need schools. Presentations from businesses promising improved outcomes, such as the Edison project and Success for All, were commonplace (Ascher, 1996; Tyack & Cuban, 1995; Carl, 1994; Kozol, 1992). "In most cases, the companies relied on teaching machines and/or programmed materials, individual diagnosis and prescription of learning, and extrinsic incentives" (Tyack & Cuban, 1995). Representatives were professional and warm, materials were organized and plentiful, but like the child in the classic folktale "*The Emperor's New Clothes*", no one wanted to ask aloud, "Why are you here in a low-performing minority district but not in a high-resource, largely Caucasian district? If all ships rise when the tide comes in, wouldn't all children benefit from these materials and approaches?" The unspoken kernel of truth was that the "drill and kill" software and scripted teacher dialogues for interacting with students wouldn't be tolerated in wealthier districts (Tyack & Cuban, 1995). Teachers' complaints of "prepackaging of learning robbing them of the chance to exercise their own professional knowledge and discretion" would be attended to rather than dismissed (Tyack & Cuban, 1995).

Nominal gains were documented, but the achievement gap was not closed using the CAI approach (Seltzer, 1971; Suppes, 1967). As the Hawthorne effect (positive attention creating positive results) created by the novelty of working on the computer wore off, students would begin to choose any keystroke to answer the multiple-choice passages out of frustration or boredom. Most students needed more direct teacher guidance and interaction in utilizing reading strategies to complete the instructional material, and lacking this direction they would perform poorly with the multiple-choice format. While some students followed the routine of entering the lab, getting out their folder, checking to see which level they needed to access for the day, and signing on to the software, something was lost at this point and the promised gains in the academic reform effort were not realized (Pillar, 1992; Cohen, 1987; Seltzer, 1971; Suppes, 1967).

For the most part, teachers who remained uncomfortable with the introduction of computers and whose definition of instructional technology was taking students to the CAI lab made limited or no attempts to expand upon usage of "the machines" to support learning. Some exceptions occurred when first adopters, usually the more technology-enthused teachers, curious about using these tools to communicate with other school communities, took the initiative to infuse technology into their lessons, making teaching and learning an exciting, constructivist experience (Rogers, 1995). One example is the middle school social studies teacher who after the September 9–11, 1994 Hurricane Debby hit Antigua, West Indies, started a unit of study and school drive to support relief efforts. As many of his students had family on the island, he infused technology to help his students use the Internet to research the cause of these events, to track the damage caused, and to communicate via e-mail with students in the country to get firsthand accounts of the events overseas. This memorable school activity would not have been feasible without the infusion of technology to support teaching and learning. Not only did Mr. Harris teach content, but he also built community by demonstrating how to use technology to allay the fears and concerns about family and friends that were keeping his students from learning. In a constructivist approach to learning, Mr. Harris became an example of how to effectively use technology in the classroom to motivate students, address their needs, and to stimulate learning (Harris, 1994). This was an example of how "to connect computer education to students' lives and aspirations. More important … (this places) kids in control of technology" (Pillar, 1992). Mr. Harris was, however, the exception in an environment wracked with technophobia. When his multimedia-center equipment needed repair, it was seen as a low priority, so a purchase order was never approved and he was no longer able to engage in these types of lessons during his instruction (Harris, 1994).

The question remained, How can we infuse technology to support instruction? Increasingly, the answer became to move from the "drill and kill" of CAI and toward the interactivity of open-ended responses like Webquests, and other project-driven approaches in using the computer as a tool for critical thinking. As this direction was expanded upon, teachers observed that students were hampered in expressing their ideas on the computer because they lacked knowledge of the keyboard. In a desire to help students make the transition from clicking an answer with a mouse to typing ideas in open-ended responses, keyboarding classes were reintroduced into the curriculum. They had been eliminated or reduced in number during the era of computer-assisted instruction as having become outdated with the demise of the typewriter (Pillar, 1992).

The reintroduction of keyboarding classes into secondary students' schedules was extremely controversial. Students taking advanced or remedial classes did not have room for this class in their schedule. Students taking the general education schedule had room for the class but found it to be boring and unchallenging, arguing that they could find the keys using the "hunt and peck" method to record their ideas

(Pillar, 1992). Purchasing expensive hardware for the sole purpose of keyboard instruction appeared wasteful and counterproductive in preparing students for academic success.

Business teachers, assigned to teach keyboarding as a job-saving measure, appeared reluctant to move students from keyboarding basics into direct computer application of skills through articulation with other classroom teachers. Lack of common planning time meant that few opportunities existed for teachers to communicate regarding ways in which the keyboarding skills could transition into computer applications in even the most basic ways. An example is the English teacher assigning a report on a particular author, and students practicing their keyboarding to work on the assignment under teacher direction in the business class as a practical application of the skill.

The realities of resistance to embracing technology in the classroom meant that administrators needed to lead reform efforts by requiring teachers to include use of the computer lab in their lesson plans. Teachers needed to document the infusion of technology through computer-lab time, which provided students the opportunity to research and compose open-ended responses. This might have taken the form of a Webquest or a research question under the guidance of the teaching assistant assigned to the computer lab and the classroom teacher. It might also have included accessing appropriate websites for reinforcement of skills, such as www.RegentsPrep.org on the secondary level or www.Starfall.com on the elementary level. Word processing in the computer lab and in elementary writing centers became an accepted form of instruction as a means of more effectively supporting the teaching and learning process; however, these were still basic applications of technology that failed to provide constructivist opportunities for learning (Niederhauser & Stoddart, 2001).

Some programs, such as READ 180, managed to successfully combine the concepts of CAI, word processing, and teacher-directed instruction into one package. As students moved from station to station within the reading center, teachers found that they appeared to respond to the multisensory instruction, making strong literacy gains (Lang, 2009). Unfortunately, once again classroom teachers saw the READ 180 teacher as the sole responsibility center for providing technology infusion in instruction (Cuban, 1993).

That misunderstanding would change again, when another tool emerged that would bring the responsibility center back to the individual classroom teacher: the interactive whiteboard. Used initially in the business world, the SMARTBoard was developed by SMART technologies, a business that saw the educational market open for a transition from the chalkboard. Gaining a large share of the market, the SMARTBoard emerged as another accepted tool for enhancing instruction. Other versions, such as the lower-cost Promethean board, gained traction in schools looking to stretch their technology dollars; however, the less expensive boards lacked the richness of features in the higher-end SMARTBoard. As a result,

although the SMARTBoard has been omnipresent in more affluent districts, it was being introduced into high-need, low-achieving schools at a slower pace (rAVe Staff, 2013; McNeese, 2007).

The technology divide was fueled by limited financial resources required to purchase and maintain this equipment. As competitive models entered the marketplace, the price dropped; however, in some districts the cost remained prohibitive. Some high-need districts adopted a phase-in process in which interactive whiteboards were purchased and installed annually by grade level as the budget permitted (Vaughn-Shavuo, 1994). The use of the interactive whiteboard also required accompanying professional development in order to truly access the richness of its capabilities in supporting instruction (Carpenter, 2010; Groff & Mouza, 2008).

As a result, the digital divide was evidenced in two ways: (1) The access divide created a lack of hardware except through "soft" funding and prohibited ongoing maintenance of the same; and, (2) The usage divide perpetuated lower-level thinking through basic "drill and kill" with limited evidence of constructivist approaches. The use of social media, blogs, Wikis, WebQuests, and iPads to support instruction in high-need, low-achieving schools appeared to be limited. The irony is that there was strong home use of these technologies by the children attending the very same schools. As in schools in more affluent communities, students attending high-need, low-achieving schools were in many cases more adept at using these tools than their teachers. Attending a school that failed to provide this same high-interest technology-based stimulation appeared to contribute to the spiral of low achievement as opposed to supporting reform efforts (Radlick, 1994). MySpace and subsequently, Facebook pages were used by secondary-school students to communicate daily. Phone calls, Instant Messaging (IM), video chats, and more were and continue to be common tools of communication for our students. More than anything, students attending high-need, low-achieving schools needed stimulating and engaging instruction that used these tools to fully draw them into the teaching and learning process.

Is teacher resistance the reason why professional development geared toward using these tools effectively didn't happen? Admiral Rickover is famously quoted as saying that "changing education is like moving a graveyard" (Rickover, 1983). He also elaborated on what it means to be educated, as follows: (1) to have knowledge of the world around us, to know history, literature, philosophy, science; (2) to possess skills such as the ability to read, to write clearly, to calculate; and, (3) to be able to think critically and logically (Rickover, 1983). Perhaps it is because educational professionals, after critical and logical reflection, determined that there was an essential need for effective professional development and that without it children's needs could not be met (Cummings, 1995). Much like the child given a nutritious bowl of oatmeal for breakfast but no spoon with which to eat it pushes back from the table rather than attempting to eat it without the necessary cutlery, and in doing so makes a nasty mess of things.

SUPPORTING PARENTS AND STUDENTS – IMPROVED COMMUNICATION WITH TECHNOLOGY

Support of parental involvement is a universal tenet of sound pedagogy. Given the Title I requirements for funding set-asides and annual parent meetings in high-need, low-achieving schools receiving millions of dollars in Title I, there was a push for inclusion in the reform effort. Parental inclusion in the educational reform effort was supported by technology by attempting to provide an avenue of communication with the community.

In the late ’90s, the Homework Hotline was installed in the district as a means of improving communication with parents. The software system was interactive and required ongoing maintenance by classroom teachers. Teachers were required to update weekly homework assignments via recordings that could be made through remote access using a home phone. Parents and students would then be able to call in to the teacher’s mailbox and hear the recorded homework assignment for the week. This was especially helpful for students who had been ill and needed to access the assignments to catch up and for parents whose children reported no assignments for the day. A parent was empowered by being given access to a means of verifying this information.

The Homework Hotline system could also be used for calling parents with a daily absence report. Parents could request any number be used for contact; if they preferred that their office number be called instead of the home number, the school could structure the software to follow those instructions. The administrator’s responsibility was that of verifying that phone numbers were correct so that the intended student’s home was contacted regarding the homeroom absence.

Special announcements were also made by calling parents to increase attendance at Parent-Teacher-Student Association meetings and Board of Education meetings, for example. The call-out system could be used to call homes in the evening up until 8:45 p.m., in an effort to leave the message with someone answering the phone (The Homework Hotline, n.a.). Attendance at meetings increased, with some parents voicing concern that they received too many calls, but glad that communication was increased. The system also supported reform efforts by increasing accountability in instruction. Parents raised questions about teachers who failed to record homework assignments and teacher evaluations included references to using technology to better inform parents and support instruction. Unfortunately, the system required that a person be assigned the task of “feeding the beast” in order to keep the information updated. As administration changed, the responsibility of managing the technology was not seen as a priority and the Homework Hotline became outdated and its use in the district ended. Eventually, it was replaced with a newer and less cumbersome system for calling out announcements, but the homework-recording component was lacking. As this happened, however, a new tool gained prominence as a support for parent-teacher communication: electronic mail, or e-mail, as it is commonly called.

Some classroom teachers began to use e-mail to contact parents of their students, as this was a tool with which they were becoming increasingly familiar. Although many were uncomfortable using their assigned school district's e-mail address, they were at ease using their personal e-mail address. This allowed for more flexibility of communication but introduced another level of concern regarding privacy and professionalism within the electronic exchange. Teachers were required to copy the principal on all e-mail exchanges to maintain a healthy dialogue and administrative oversight on what could potentially become legal documents in a superintendent's hearing or court matter. This increased degree of communication capacity led to more complex dynamics with regard to accountability in the school community.

As teachers and administrators became more comfortable utilizing technology to enhance communication with parents, the digital access and usage divides became more apparent. In a high-need, low-achieving district, many landline phone numbers were inaccurate as families found it easier to rely more heavily on cellular phones. The cellular phone or cell phone as it came to be commonly called, allowed for greater ease in ownership and cheaper billing (Keeter, Kennedy, Clark, Tompson, & Mokrzycki, 2007). It also allowed for facilitated changing of a number upon request and provided the option of disposability when needed. The maintenance of the cell phone as opposed to both a landline and cellular was in most cases purely a financial decision. Interestingly, as cell phones have become richer in their capabilities, this tendency to use them as a primary or sole phone has led to coining of the term "cell phone only" (CPO), and this behavior now appears to cross all socioeconomic levels (Aoki & Downes, 2003; Ansolabehere & Schaffner, 2010). The international market-research organization GfK released April 2015 data indicating that more than four in ten adults in the United States live in CPO households, growing 70% since 2010.

Twenty years ago, however, for many parents in high-need, low-achieving communities, maintaining a phone connection took precedence over the purchase of a computer system at home. One company that spoke with parents regarding assistance with the purchase of a desktop system was Blue Hippo. With several incentives such as a television and iPod for purchasing the desktop through their company, Blue Hippo hoped to encourage parents to make monthly payments over an extended period of time in order to put computers in their homes. Parents were reluctant to commit to a long-term payment plan, which although it collected manageable small amounts of money would have resulted in an expensive purchase once all of the fees were tabulated. In retrospect, parents were wise to avoid the "rent to own" financing which Blue Hippo advertised. Evidence of mismanagement appears on the Maryland-based Better Business Bureau website even though the company filed for bankruptcy in 2009. Complaints of deposits collected but no equipment delivered appear unresolved. Parents in high-need districts recognized the importance of technology access and yet in some cases were defrauded of their already limited resources.

The improved capabilities and reduction in pricing did ultimately lead to a proliferation of laptops, tablets, and smartphones, which helped close the digital access but not necessarily the instructional usage divide for students in high-minority, low-achieving school districts (Aoki & Downes, 2003). Curricular applications of technology using students' own devices in classrooms have not been well developed, to date. Having students bring their own devices/technology (BYOD/BYOT) to classrooms in support of instruction, as opposed to banning cell phones, laptops, and tablets, remains to be explored as a means of garnering parent involvement in sharing the responsibility for closing the digital access and usage divides (Lagarde & Johnson, 2014; Sangani, 2013).

SUPPORTING TEACHERS AND ADMINISTRATORS – MINING DATA TO DRIVE REFORM

Over the past twenty years, reform efforts in high-minority, low-achieving school districts have been driven by largely unfunded mandates coming through the Compact for Learning and No Child Left Behind. Five-year technology plans were required in order to receive federal and state funding. Title II specifically addressed the infusion of technology into the teaching and learning process, while every funding stream required some evidence of technology integration into the plan (Vaughn-Shavuo, 1994). Data-driven reform led to efforts to better collect and track the emerging trends in the data. The Board of Cooperative Educational Services (BOCES), as an arm of the New York State Education Department, provided support in the warehousing of data for school districts across the state. Other states across the nation, such as Connecticut, New Mexico, and Wisconsin, have organizations that serve as purchasing cooperatives like the New York State BOCES and they are generally referred to as cooperative educational services. Their websites offer data-driven analysis in support of school districts. In New York State, the BOCES serves as a collection and reporting agency for the benchmark assessments; therefore, it seemed most logical to house district data at that site for longitudinal review purposes. The data warehousing provided invaluable information for the development of "school-wide programs" and comprehensive school reform efforts in high-minority, low-achieving school districts. As with all information systems, training and care were needed to "feed the beast" to ensure valid and reliable data reports. Schoolwide plans, offered as a comprehensive reform-plan option for schools exceeding 75% poverty, allowed for flexibility in the use of Title I monies in an effort to increase achievement for all enrolled students. This federally based reform initiative was driven by poverty data for funding and student-achievement data for measures of success. In many cash-strapped districts, monies were now available for bringing computer hardware into schools. Title II monies focused on providing professional development regarding effective infusion of technology into classroom instruction. Comprehensive School Reform Development (CSRD) plans

tapped the data warehouse to mine for both demographic and achievement trends in districts. Both of these plans were only available as planning options in designated Title I of the Elementary and Secondary Education Act schools, those schools with high poverty and low academic achievement. The use of technology provided the framework within which the plans were developed to utilize a data-driven approach to reform efforts (USDOE, 2015).

As teachers and administrators became more adept at using technology to mine data and open discussion regarding root causes of low academic achievement in high-need districts, another layer of technology software unfolded to support the reform efforts: the Student Management System. Daily information input regarding attendance, demographics, and behavior reports (e.g., suspensions) was the fodder for "feeding the beast" (Petrides & Guiney, 2002).

Professional-development sessions were conducted to train classroom teachers, clerical staff, and administrators on how to effectively and efficiently enter data in order to have "clean" information to support academic reform efforts. Classroom teachers learned to take attendance daily using the teacher computer station specifically dedicated to the teacher's use in the classroom. This attendance data needed to be collected by the teacher by certain designated points in time daily in order to be accessed and processed through the attendance office for finalized reporting. Clerical staff needed professional development to input demographic information during the registration process and to update information as parents or other caregivers provided documentation regarding changes in an address, phone number, or guardianship. The demands of time and resources to continually feed and update information proved overwhelming as the additional responsibilities were added to persons already tasked with so much. In reality, updating of the information lagged behind so that the data became contaminated and of limited use. As Prakash (2013) has characterized it, "Blind application of data-mining methods (rightly criticized as 'data dredging' in statistical literature) can be a dangerous activity, easily leading to discovery of meaningless and invalid patterns."

Administrators required professional development to unlock the potential power of the software in interacting with parents, students, and staff for informed decision-making throughout the day. Administrators needed to be comfortable and adept with accessing students' schedules, attendance record, behavior reports, and demographics at any time. Having this accurate information in real time made for informed decision-making, which in turn led to improved delivery of services to students, teachers, and parents. Oftentimes, being able to access this information at my fingertips led to better decisions in supporting a child during a parent conference.

School Administration Student Information (SASI) software was a leader in providing this platform. Real-time reports could be generated to assess changes in classroom enrollment trends to make decisions regarding the need to split classrooms or to hire more teachers in the new budget. Real-time reports could

be generated to respond to New York State Education Department requests for data such as the Immigrant Census, which counted the number of children born outside of the United States and tracked the countries in which they were born, or the Violent and Dangerous Incidents Report (VADIR), which tracked suspensions and reported on school safety. The SASIxp (the next generation of SASI) literature summarizes the business perspective on school reform as follows, "Key to better educational experiences is to better manage schools. Key to better management is more and better data to inform decision-makers. Technology tools such as relational databases will give school personnel that data. Benefits range from cutting costs to improving services and boosting morale (SASIxp, 1996)." This business perspective on school reform efforts doesn't mention children and improving learning outcomes, but rather focuses on the management of the system that houses bodies until they have aged out. This philosophical flaw as related to business operations within school systems might have been the genesis of full adoption failure, even with the SASIxp rollout, which led to loss of market share, and ultimately the company's demise.

There were many times, however, when using SASI that the local area network (LAN) system was slow or down or not updated and the frustration of having the technology fail to support reform efforts is a vivid memory. This had a negative impact on professional development intended to support staff, especially first adopters, in using the system. This was not a reflection upon the SASI software but once again pointed to the need to better support the maintenance and upgrading of the hardware as critical infrastructure within the system, and the lack of resources available to do so in a high-need district.

Reports that previously had taken hours were now produced within minutes, providing that the data had been entered properly. PowerSchool became the next generation of student-management software, providing the same supports for data mining with the intent of being more user-friendly in design. The business website expresses a perspective that connects children and their education to the technology integration of their software. "PowerSchool plays a central role in K-12 education, serving as the hub of customers' education ecosystems with robust features…that allow education stakeholders to effectively manage school processes and student data and connect education technologies relied upon in school offices and classrooms alike" (PowerSchool, 2015). The business shifted gears to understand that in true educational reform, educators, not data managers, need technology hardware and software to provide information that will help them focus on what matters: the students' needs (PowerSchool, 2015).

The success of these or any student information-management systems always lies in "feeding the beast." The adage "garbage in, garbage out" accurately sums up the dilemma. Time, effort, and resources must be dedicated to the front end of the process in order to input accurate information so that the end product is reliable (Prakash, 2013).

WHERE ARE WE HEADED WITH TECHNOLOGY AND REFORM EFFORTS?

Over ten years after *A Nation at Risk* (1983) was published, *Perform or Perish* drew attention to an educational system in New York State that still allowed children living in poverty to fail academically. As the report from the Low-Performing Schools Advisory Council indicated, "Savage inequalities persist in the support we provide to students in our State (1994)." Twenty years later, these questions of educational equity in high-need, low-performing schools continue to haunt us, begging for resolution as each child's future unfolds. As David (1991) stated, "First, people need an occasion to change—a reason for taking on something more difficult… So the beginning steps of restructuring require leadership that invites change…that signals that it is no longer business as usual and that there is a sincere request for and commitment to support serious change efforts." Change efforts driven by businesses seeking profits have allowed for the appearance of honoring a sacred trust, but have truly worked to "maintain the legitimacy and privilege" of their class (Boyle & Silver, 2005; Kozol, 1992; Kozol, 1991).

If we have a hand in the making of our children's future, we must continue to support efforts to provide funding for the infusion of technologies into the teaching and learning process of each high-need, low-achieving school. This includes ongoing maintenance and upgrading of machines to address the digital-access divide (Tyack & Cuban, 1995; Pillar, 1992). Efforts must also support the accompanying professional development so that both classroom teachers and administrators gain an understanding of ways in which to use technology to fully support the teaching and learning process on a daily basis (Groff & Mouza, 2008; Niederhauser & Stoddart, 2001). This may entail rich partnerships with institutions of higher education with values rooted in inquiry-based learning, constructivist approaches, and community-based initiatives.

During reform initiatives, high-risk students were tested to death in an effort to monitor academic progress because of low scores, but then received "drill and kill" and scripted supports that fostered lower-level thinking skills, which in turn maintained low scores (Tyack & Cuban, 1995; Pillar, 1992). Joseph Rice (1897), in his search for a link between the time spent on spelling drills and students' performance on spelling tests, found none. Essentially, the spelling grind, the "drill and kill," leaving instruction at the lower level of thinking, did not lead to overall student achievement. Albert Einstein's oft-quoted assessment of this behavior remains applicable in this scenario: "the definition of insanity is repeating the same behaviors and expecting a different outcome" (Einstein, n.d.). The professional development, consisting of in-class modeling, practicing, and feedback support required to use computers and software in constructivist ways, is risky at best when funding streams such as Race to the Top apply pressure for immediate positive upticks on scores, yet it is this instructional approach that has fostered engaged learning and true academic gains (Pillar, 1992; Niederhauser & Stoddart, 2001). The vicious cycle disguised as the use of technology to support reform efforts has perpetuated a system in which lower-

wage jobs requiring response/reward system thinkers are filled by children exposed to "drill and kill" instruction through technology support. For various reasons rooted in societal norms, while many middle-class children have been encouraged and rewarded by parents and teachers for self-direction in their thinking and learning, the children of lower-class families are often taught to conform (Kohn). Classrooms in which the constructivist approaches to using technology through extended responses that foster critical thinking cultivate the decision-making required to enter and succeed in institutions of higher education and subsequently, higher-paying careers. This instruction should not be reserved for children outside the high-need, low-achieving schools experience.

Perhaps there was a time when people argued whether or not pencils should be used daily to support instruction. As the new technology, people were apprehensive about the rigidity of the shape as opposed to the more creative, arbitrary shape of charcoal. There may have been concerns about the spread of disease since you didn't have to wash your hands after each use of the pencil the way you did when using the charcoal. Some may have argued that it was too easy to write with the pencil and so children could play with it when they finished their real work with the charcoal. Some children were forced to practice repetitions of squeezing the pencil so that they could "drill" the concept of holding it correctly, while others were forced to "practice" forming shapes over and over again since they needed to "learn the basics" of holding the pencil. Yet when using the pencil with a constructivist view, children were encouraged to think critically, and those thought processes became easier as students were able to record thinking with greater ease and the information didn't easily smear, so it could be referenced, shared, and discussed with others.

The simple pencil illustration serves to reinforce that the argument regarding the daily use of technology is moot, given that our students were born in the age of color televisions, cell phones, iPods, iPads, iPhones, video consoles, and more. Technology provides additional tools for classroom instruction, tools that our students are comfortable with and excited to use in their quest for information, knowledge, and understanding. Technology also provides a means to better support the parent-school connection needed to best educate our children. Lastly, technology, when used effectively, can provide the information needed for school communities, especially in high-need, low-achieving schools, to inform decisions that best support children. True reform demands that the technology access and usage divides be conquered. The direction for true reform is very clear. Our children truly deserve it and our future, both as public school educators and as a country, demands it.

NOTE

[1] The author worked in the Hempstead Union Free School District in New York State during the time period recalled. Although students made gains during her tenure, the district still wrestles with maintaining progress and is identified as high-need, low-achieving by the New York State Education Department (http://www.p12.nysed.gov/irs/accountability/2011-12/November2011DistrictsAndStatusAddInfo.pdf).

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3. IN-SCHOOL REFORM IN HIGH-NEED SCHOOLS

Teaching the Next Generation

The Common Core State Standards Initiative has provided renewed impetus to school reform. Common Core State Standards (CCSS) are intended to more clearly align the school curriculum in English-language arts and mathematics with the expectations of colleges, workforce training programs and employers. They are also intended to promote equity through the provision of quality education to all Americans (NGACBP, 2010). The New Generation Science Standards (NGSS) have been developed through a parallel and complementary process. The theme of technology integration is deeply embedded in the current reform initiatives (Ross, Morrison, & Lowther, 2010). The Common Core State Standards for language arts highlight the uses of technology to:

> gather, comprehend, evaluate, synthesize, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and non-print texts in media forms old and new. (Common Core Standards Initiative, 2014a)

In the same vein, the mathematical standards call for the development of students' abilities to select and use a wide range of technological tools and resources such as calculators and digital content to "explore and deepen their understanding of concepts" (Common Core Standards Initiative, 2014b, p. 7).

The U.S. Department of Education, through the Office of Educational Technology, has taken a key role in framing a vision for technology integration. The policy thrust is to support high-quality learning. The National Education Technology Plan (NETP) calls for a "revolutionary transformation" by leveraging technology "to provide engaging and powerful learning experiences and content, as well as resources and assessments that measure student achievement in more complete, authentic, and meaningful ways" (U.S. Department of Education, 2010, p. ix). The ConnectED Initiative was launched by President Obama and Education Secretary Arne Duncan in 2013 to connect 99 percent of schools across the country to broadband Internet within five years (U.S. Department of Education, 2013). The focus is on both quality and equity, as the following statement indicates:

D. Thornburg & A. M. Mungai (Eds.), High-Need Schools, 37–46.

> Our schools must have modern-technology infrastructure and our students must have access to the best resources—regardless of where they live—so that they are prepared to thrive in a globally connected world. (U.S. Department of Education, 2014c)

This chapter focuses on technology integration in high-need school contexts. The goal is to assess optimal conditions for technology integration to improve learning outcomes.

THEORETICAL CONSIDERATIONS

The integration and use of technology in education requires an understanding of the process of learning (Hew & Brush, 2007; Roblyer & Doering, 2012; Jonassen, 1995). Nevertheless, technology uses in education have had strong historical roots in behaviorist and neo-behaviorist theories, a tradition that has persisted (Burton, Moore, & Magliaro, 2008). Behaviorism foregrounds information transmission, practice, and reinforcement while marginalizing the role of active minds in the construction of knowledge. Historically, cognitivism followed behaviorism. In contrast to behaviorism, cognitivist theories consider mental processes such as thinking, knowing, memory, and problem-solving as valid and essential to the design of instruction (Reigeluth, 1983; Winn, 1990; Bures, 2002). Information-processing theories are the most common example of cognitivist theories. Varela, Thompson, and Rosch (1993), among others, have articulated the cognitivist position:

> The central intuition behind cognitivism is that intelligence—human intelligence included—so resembles computation in its essential characteristics that cognition can actually be defined as computations of symbolic representations. (p. 40)

It is assumed that problem solving can be characterized in terms of a task environment, and a mental "representation" or cognitive structure. The theory suffers from an inability to satisfactorily articulate how contexts are developmentally connected to cognition. The default position has been to marginalize the role of contexts. Gardner (1987) summarizes this perspective as follows:

> Though mainstream cognitive scientists do not necessarily bear any animus… against the context that surrounds any action or thought, or against historical or cultural analyses, in practice they attempt to factor these elements to the maximum extent possible. (p. 41)

This limitation conflicts with the observed reality that learning and development are inextricably connected to contexts (Guberman & Greenfield, 1991; LCHC, 1993; Saxe, 1982). This is more so if we foreground *meaning* as a core concept in learning and development as Bruner (1990) has urged. The position finds further elaboration from Harre and Gillet (1994), who make the case that:

> Mental activity is not essentially a Cartesian or inner set of processes but a range of moves or techniques defined against a background of human activity and governed by informal rules. (p. 19)

Despite its shortcomings, cognitivism has been a significant advance on behaviorism because of its capacity to account for mental activity. A significant body of work on instructional design and technology integration has been informed by this perspective (Winn, 2003; Reigeluth, 1983). The third perspective that has informed instruction is cultural-historical, in the tradition of Lev Vygotsky (1981).

FROM COGNITIVISM TO A CULTURAL-HISTORICAL PERSPECTIVE

The central premise of Vygotsky's work is that cognition has social foundations. The primacy of culture in the cultural-historical perspective has opened up a path to address the limitations of cognitivism. The foundations of the cultural-historical theory were laid by Vygotsky (see for example Vygotsky, 1981).The genius of his formulation was the avoidance of the reductionism of behaviorism, that is the assumption that the environment is everything, and that of cognitivism, which has marginalized contexts.

Vygotsky accounts for cognition in terms of higher psychological functions (e.g. language, self-regulation, reading, writing, and tool use) that are constructed on the foundation of the elementary innate foundations. Higher psychological functions are products of a cultural-historical process. The development of higher psychological functions is the history of the transformation of the means of social behavior into means of individual psychological organization (Vygotsky & Luria, 1994). Tool use has usually been regarded as additional or irrelevant in relation to thought. Vygotsky argued that tool use is a product of the historical and psychological organization of behavior and should be regarded on a similar footing with all other higher psychological processes (Vygotsky & Luria, 1994). Weber (1976) and some others have used the term "artifact" to refer to tools. For Weber, an artifact is to be understood "only in terms of the meaning which its production and use have had or will have for human action…Without reference to this meaning such an object remains wholly unintelligible" (p. 212). An elaboration from Wartofsky (1979) further clarifies this point:

> The crucial character of a human artifact is that its production, its use, and the attainment of skill in these, can be transmitted, and thus preserved within a social group, and through time, from one generation to the next. (p. 201)

The cultural-historical perspective on tools provides a foundation for how we can conceptualize technology in learning and instruction. There are two critical concepts that are pertinent to this discussion. The first is the focus on the social foundations of knowledge. Learning and development are to be understood in terms of dialogic processes that occur between the student and a more knowledgeable other. The gap

between what the student is able to accomplish independently and what they can accomplish with support is called the Zone of Proximal Development (Vygotsky, 1978). The role of the teacher, acting as the more knowledgeable other, is to locate this dynamic space and provide support for growth. The role can be performed in a person-to-person relation. Alternatively, a thoughtfully constructed technological system can be used to scaffold learning. The learning is not a transmissive process, as in behaviorism, but a constructive, sense-making process (Luckin, 2008; Bennison & Goos, 2010; Campbell, Lim, & Smala, 2012).

The second point is related to the first. It is the focus on meaning, with knowledge as an outcome of an intentional constructive process. With these two driving ideas, it is possible to begin to create a framework for best practices in technology integration. It is immediately apparent that for this to work, the teacher should have enough time and opportunity to plan for instruction that scaffolds conceptual understanding and higher-order thinking. Second, this calls for teachers who are sufficiently knowledgeable about both content and pedagogy. These are by no means radical requirements. But it is precisely the lack of these qualities that has characterized high-need schools. The problem is exacerbated by the fact that students in high-need schools, as individuals, are relatively more disadvantaged when compared to those in regular schools (Nelson, 2004; Berry, Montgomery, Curtis, Hernandez, Wurtzel, & Snyder, 2008).

THE SPECIAL CASE OF HIGH-NEED SCHOOLS

High-need schools have disproportionate numbers of underperforming students as measured by grade-level state tests. They are also characterized by relatively large proportions of some or all of the following: English language learners (ELL), children living in poverty, migrant children, and children in need of reading assistance (U.S. Department of Education, 2002, Stat. 1440). Under Title 1 of the Elementary and Secondary Education Act (ESEA), all children should have "a fair, equal, and significant opportunity to obtain a high quality education" (U.S. Department of Education, 2002, Stat. 1439). The current reauthorization of ESEA is the No Child Left Behind (NCLB) act of 2001. NCLB holds schools accountable for the academic performance of all students by providing high-quality instruction. The most persistent inequities exist in schools that predominantly serve minorities (Hemphill & Vanneman, 2010; Vanneman, Hamilton, Anderson, & Rahman, 2009; Glenn, 2011). A school will be targeted for improvement if it fails to make adequate yearly progress (AYP), as measured by state standards, for two consecutive years.

The ConnectED program and the National Technology Plan are examples of initiatives at the federal level to improve learning outcomes through technology integration. There have been parallel initiatives at state and school-district level. The Detroit Public Schools' Educational Technology Plan is a case in point. According to the plan, the way forward "must include the ability to integrate technology into the process of learning and teaching and requires competent teachers certified to use

technology" (Detroit Public Schools, 2015, p. 96). The district has a preponderance of underperforming high-need schools (Ziebart, 2002). At the same time, the gap in technology access between regular and minority schools has been narrowing (Barton & Coley, 2009). However, there is evidence that the intensity of use of technology is higher in regular schools (NEA, 2008; Wachira & Keengwe, 2011; Barton & Coley, 2009). To investigate the national trend more closely, data from a national survey of teachers of mathematics were analyzed with a comparative analysis between high-need and regular schools. The data set came from the National Survey of Science and Mathematics Education (NSSME) (Banilower et al., 2013).

NATIONAL PATTERNS OF USE OF TECHNOLOGY

The national survey covered science and mathematics teachers. The focus of this analysis was on a subset of the data drawn from mathematics teachers. Mathematics has been one of the subjects of focus through the Common Core State Standards reform agenda. For the purposes of the analysis, high-need schools were defined using the percentage of students reported as eligible for participation in the free and reduced-price lunch program established by the Richard B. Russell National School Lunch Act (U.S. Gov. Printing Office, 2001). A subset of survey data from 1,557 teachers was extracted from the NSSME data. The subset was made up of respondents who provided complete data on the level of technology use in their mathematics lessons and the proportion of students in their schools receiving free and reduced-price lunch. The level of classroom technology use was based on teacher self-report data. The original data were on Likert-type scales. Composite (aggregate) scores were compiled from teacher responses on the extent of use of (1) computers (including laptops), (2) hand-held computers, and (3) the Internet (Banilower, 2013, Appendix E). The composite scores were transformed into a 100-point scale, with the lowest response set at 0 (Banilower, 2013, Appendix E).

The data on the extent of use of technology were recoded and transformed into categorical data, with three groups as follows: 0–33 defines low technology use; 34–66 defines medium technology use; and 67 and above defines high technology use. The SPSS procedure cross-tabs was run on the data on the two variables, *type of school* (high-need and regular), and *technology use* (low, medium, and high). A table of frequencies was generated (see Table 1). The Pearson chi-square statistic was generated from the procedure. The test examines whether there is an association between two categorical variables.

The data yielded a total of 1,046 (67.2%) high-need schools and 511 (32.8%) regular schools. The vast majority of the respondents (1,079) indicated low usage. There were 427 teachers in the medium-usage category, and only 51 in the high-usage category. A further assessment of the cross-tabulated data indicates that 72.6% of the high-need school teachers reported low usage of technology, 24.8% reported medium usage, and 2.7% reported high usage. The comparative data for the regular schools are: 62.6% reported low usage; 32.9% reported medium usage; and

Table 1. Cross-tabulated frequencies: Use of technology as reported by teachers for mathematics instruction, by type of school (high-need or regular)

		School type		*Total*
		High-need	*Regular*	
Low	Count (frequencies)	759	320	1079
	% (low usage by school type)	70.3%	29.7%	100.0%
	% (school type by level of use)	72.6%	62.6%	69.3%
	% of Total	48.7%	20.6%	69.3%
Medium	Count	259	168	427
	% (medium usage by school type)	60.7%	39.3%	100.0%
	% (school type by level of use)	24.8%	32.9%	27.4%
	% of Total	16.6%	10.8%	27.4%
High	Count	28	23	51
	% (high usage by school type)	54.9%	45.1%	100.0%
	% (school type by level of use)	2.7%	4.5%	3.3%
	% of Total	1.8%	1.5%	3.3%
Total	Count (by school type)	1046	511	1557
	% (by school type)	67.2%	32.8%	100.0%
	% (gross by category)	100.0%	100.0%	100.0%

4.5% reported high usage. Of the 1,079 schools reporting low usage, the majority (70.3%) were high-need schools. The formal chi-square test yielded a significant association between the type of schools and the reported level of use of technology in mathematics classrooms χ^2 (2) = 16.62, p = 0.000. This indicates that the use of technology for mathematics instruction, as reported by teachers, was significantly more intensive in the regular schools than in high-need schools.

The analysis provides some insight into the uses of technology, but the picture cannot be complete without data on how the technology was actually used, and in particular the extent to which technology was used to support student thinking. Studies in regular schools (Cuban, Kirkpatrick, & Peck, 2001; Cuban, 2013; Zhao & Frank, 2003; Tallvid, Lindstrom, & Lundin, 2014) and high-need schools (Barton & Coley, 2009; NEA, 2008; Wenglinsky, 2005) indicate that greater access to technology has mostly not been matched by reforms in instruction. The challenge is greater in high-need schools, where students are more likely to be taught by less-qualified teachers, teacher turnover and absence tend to be higher, and class sizes are larger (Barton & Coley, 2009; Chapman, Masters, & Pedula, 2010; Berry & Rasberry, 2007; Barnett, 2007; Lankford, Loeb, & Wyckoff, 2002). Studies have shown that higher teacher qualifications are associated with more effective uses of

technology in the classroom (Chapman, Masters, & Pedula, 2010). The challenges are compounded by other factors that are typical of high-need schools such as inadequate professional development, shortage of textbooks and other materials, inadequate teacher planning time, weak teacher support, and a lack of professional trust and respect for staff (Berry & Rasberry, 2007).

CONCLUSION

That technology is essential for supporting learning is a *sine qua non*. The history of technology in education spans centuries, going as far as the invention of pencil, paper, and textbooks. What has changed is the range of tools available and the enhanced power of technology. Of greatest significance are computer technologies. Our perceptions of the power of these tools can generate a sense of complacency about the critical mediating role of other factors. While the National Technology Plan presumes "revolutionary" changes associated with investments in technology, the evidence indicates that investments in technology must go hand in hand with improving the capacity of schools and teachers to use the technology. While this is true for both regular and high-need schools, the needs are greater for high-need schools (Wachira & Keengwe, 2011; NEA, 2008; Chen & McPheeters, 2012). Improving the capacity of high-need schools to use technology requires attention to a set of contextual factors that uniquely define these schools. Key factors include pressures on teacher time (teachers cite increasing accountability demands), inadequate teacher knowledge (teachers cite lack of knowledge to use available technologies), and challenges associated with classroom management (teachers cite large numbers of students, among other factors) (Wachira & Keengwe, 2011). At the same time, the recruitment and retention of good teachers for high-need schools must be addressed. Berry (2008) has described this as "the most vexing problem facing America's education policy makers" (p. 766). It has, in fact, been argued that good teachers in high-need schools are a greater priority than materials and technological supports (Darling-Hammond, 2010). The path to better outcomes requires the retention of good teachers and a climate of support within school districts that values quality teaching (Darling-Hammond, 2010; Grissom, 2011). In sum, the answer lies in more holistic approaches to tools and contexts of learning, a direction that the work by Zhao and Frank (2003) points to.

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4. ISSUES OF LEADERSHIP IN SUCCESSFUL SCHOOL REFORM

Central Importance of Leadership in Successful School Reform

Educational reform has been an ongoing process in schools in the United States and can be viewed as the changes that occur in school policy when economic, social and technological forces make new demands on what we want our students to know in order to be successful. Whether we view reform as the changes in procedures or rules that affect how the schools operate or the overall restructuring of school organizations, these are all steps toward change. Schools, like business organizations, require effective leadership to succeed in the very changing educational climate. As Fullan (1993) and Sparks (1993) point out, school leaders need to understand the change process in order to lead and manage change and improvement efforts effectively. They must learn to overcome barriers and cope with the chaos that naturally exists during the complex process of change (Fullan & Miles, 1992).

For successful change to occur, school leaders must work with their staff and the community to build a clear educational vision that is connected to teaching and learning. This collective vision motivates and increases the sense of shared responsibility for student learning. Secumski-Kiligan (1993) states that schools serve as places of transition between the home and larger society, and are seen as special systems requiring effective leadership that would engage in spontaneous and crisis-oriented decision-making in instances of frequent interruptions and unpredictable problems.

Successful school reform requires identifying areas for improvement and developing the plans for change as well as effectively implementing and monitoring the changes. These steps require sound leadership from principals and other key school leaders and teachers to build effective teams by developing new organizational structures and creating a shared vision that focuses on authentic student learning (Newmann, 1993; Maeroff, 1993). Such inspired and informed leadership is critical to the success of any reform. School leaders must always keep in mind the broader mission of providing high-quality education for all students. The issues of equity must also be considered within the broader scope of providing equal access and opportunity for minority groups within the system. Principals and other school leaders have a critical role to play in the implementation of any reform; they need to be the driving force behind any reform efforts and there must also be support

D. Thornburg & A. M. Mungai (Eds.), High-Need Schools, 47–59.

from followers. Therefore, there should be delegated as well as democratic forms of leadership to accomplish any reform.

The core values that leaders possess inspire their administrative practice, their creation and communication of shared values (Fullan, 2001) as well as their behaviors that dictate commitment and personal mission (Beck & Murphy, 1995). The ideas of facilitative leadership must also be considered, as Senge (1990) explains that the principal's role must change from a top-down supervisor to that of facilitator, instructional leader, coach, and strategic teacher. Blumberg and Greenfield (1986) refer to such leadership as a pervasive pressure to maintain harmony and peace in an ethos of traditionalism, ambiguity, and uncertainty. Sergiovanni (1996) supports these views and endorses the need for the characteristics of personal experiences, insight, empowerment, community, professional and school norms, caring and emotion. Michael Fullan (2001) reiterates that the principal plays a key role in developing the capacity of a school. The school must become a democratic community with the principal sharing and sustaining ideas about change in order to transform the conservative system and to make teachers and schools moral change agents (Fullan, 2001).

VISION AND MISSION OF SUCCESSFUL LEADERS

Vision and mission are integral to effective leadership and are found in almost all organizations, including schools. Current literature on leadership characterizes the leader as the one who has the vision of the organization's purpose, and manages that vision, defined as the force that moulds meaning for the people of an organization (Manasse, 1986). In like manner, the mission of any organization drives the goals of many schools and school districts and can range from academic and cognitive goals, physical, social and emotional development, development, integration into the global, local community and providing a safe and nurturing environment. The leader sets goals based on the vision and creates the environment in which there is consensus, high standards, and collaboration among all individuals within the institution. According to Hunt (1991), a visionary leader focuses attention on the vision, and is able to communicate about the vision, displays trustworthiness and respect and takes risks.

Manasse (1986) categorized visionary leadership into four distinct types of vision: *organizational vision* is having the complete picture of the whole system as well as the interrelationship of its parts. *Future vision* is the ability to look into the future to see what the system will look like and how it will be positioned and function in the environment. *Personal vision* is the leader's own aspirations that serve as the impetus for actions by the leader to link the organizational vision to the future vision. *Strategic vision* is the unique way the leader is able to connect the reality of the present to future vision.

In schools, principals are looked upon for the guidance and energy when reforms are to be implemented. They have the ability to translate vision into reality

(Bennis, 1990; De Pree, 1989). "Future vision is a comprehensive picture of how an organization will look at some point in the future, including how it will be positioned in its environment and how it will function internally" (Manasse, 1986, p. 157). Murphy (1988) believed that the leader's vision must be shared by those who will be involved in the realization of the vision. Whether the vision of an organization is developed collaboratively or initiated by the leader and agreed to by the followers, it becomes the common ground, the shared vision that compels all involved (Méndez-Morse, 1992). The notion of shared vision is an indication of "true leadership" on the part of the leader, who is not merely looked upon as a manager, and who includes all involved in the realization of that vision (Westley & Mintzberg, 1989). In like manner the mission of any organization drives the goals of many schools and school districts and can range from academic and cognitive goals to physical, social and emotional development, integration into the global, local community and providing a safe and nurturing environment (Bebell and Steimer).

MODELS OF LEADERSHIP

Carlson (1996), in a brief historical overview of leadership styles, traces classical leadership back to the 1900s that focused on special traits of leaders, which led to the "great man" approach to looking at leaders having special traits. The next era of leadership research led to a human-relations approach to leadership. Theory X and Y developed by McGregor (1944) stressed the importance of leaders' examination of their assumptions of those they hoped to lead and the resulting relationships. It was found that these were not the only traits of leaders and the analysis of traits led to looking at skills and behaviors of leaders in relation to others.

In an extensive look at leadership models, Sylvia Méndez-Morse (1992) also traced the trait model of leadership that investigated individual traits such as intelligence, birth order, socioeconomic status, and child-rearing practices (Bass, 1960; Bird, 1940; Stogdill, 1948, 1974). She shared Stogdill's (1974) six categories of personal factors associated with leadership: capacity, achievement, responsibility, participation, status, and situation. It was concluded that such a narrow characterization of leadership traits was insufficient. Stogdill (1948) states, "A person does not become a leader by virtue of the possession of some combination of traits" (Stogdill, 1948, p. 64).

Situational leadership followed the trait era of examining leadership where characteristics of the setting could contribute to a leader's success. Hoy and Miskel (1987) identified four areas of situational leadership which included structural properties of the organization, organizational climate, role characteristics, and subordinate characteristics (Hoy & Miskel, 1987). These areas, although revealing more characteristics of leadership skills, were still not sufficient to predict the skills needed to be effective in different situations (Méndez-Morse, 1992).

If one looks at leaders from a two-dimensional perspective of initiating structures, where there is a concern for organizational tasks, and the concern for individuals

and personal relations, it will yield a great deal of information on effective behaviors of leaders. When leaders can plan, organize and define the task and accomplish the work, while looking after the social and emotional well-being of the individuals by recognizing their efforts, their work satisfaction and self-esteem that influences their work, then there is effectiveness and efficiency (Méndez-Morse, 1992).

Another way to view leadership is through the contingency approach, which Hoy and Miskel (1987) defined as attempts to "specify the conditions or situational variable that moderate the relationship between leader traits or behaviors and performance criteria." House's (1971) Path-Goal Theory also included the interaction of leadership behaviors with situation characteristics in determining the leaders' effectiveness (Méndez-Morse, 1992). He identified four leadership behaviors as directive, achievement-oriented, supportive, and participative, and two situational variables, subordinates' personal characteristics and environmental demands such as the organization's rules and procedures that most strongly contributed to leaders' effectiveness. The contingency models furthered the understanding of leadership but did not completely clarify what combination of personality characteristics, leaders' behaviors, and situational variables are most effective (Méndez-Morse, 1992). Barnes and Kriger (1986) suggest that these theories of leadership did not fully explain leadership qualities because they dealt with single leadership with many followers, rather than leadership in a pluralistic sense.

The organizational model of leadership takes into account the entire organization in which the leadership roles overlap and shift from one individual to the next, and do not depend on a single leader. This is a newer way to view leadership with an inclusive lens of viewing principal and teacher leaders as sharing the leadership roles within the school. This way the other individuals who assume leadership will be recognized in effectively run organizations (Murphy, 1988).

The concept of transactional leadership was first described by Max Weber and further explored by Bernard M. Bass (1985). Transactional leadership, also called managerial leadership, focuses on the role of supervision, organization and group performance. A leader who adopts this style will focus on specific tasks and will use rewards and punishment to motivate individuals. This theory uses the behavioral approach to management and assumes that individuals perform at their best when there is a clear chain of command. Transactional leadership is often used in the business sector and individuals are rewarded for good work or reprimanded for poor performance (Cherry, 2006).

The leadership studies in the 1970s and 1980s focused on individual characteristics of leaders that influenced their effective performance, which led to successful organizations. Also in this period the concept of visionary leadership was introduced as studies differentiated leaders from managers. Effective leadership was said to incorporate a shared vision and value the human resources within the organization, whereas managers facilitate the work according to rules and regulations. A new theory of transformational leadership emerged from looking at these leadership characteristics (Méndez-Morse, 1992).

The concept of transformational leadership was introduced by Burns (1978) and he described it not as a set of specific behaviors but as a process by which "leaders and followers… raise each other to higher levels of morality and motivation" (Burns, 1978, p. 20). He differentiated the transformational leader from the transactional leader by looking at the way these leaders motivate others by appealing to self-interest (Méndez-Morse, 1992). Bass (1985) agrees that these leaders motivate followers by appealing to strong emotions regardless of the ultimate effects on the followers. Transformational leaders focus on a common purpose and address the intrinsic rewards and the psychological need of self-actualization. They develop a commitment with and in their followers (Bass, 1985; Sergiovanni, 1989, 1990).

The transformational leader provides the map for action and helps create a sense of the possible (Carlson, 1996). Conger (1989) states that transformational leaders build trust through expertise both in the content and process through commitment and the willingness to take risks. The transformational leader builds empowerment through the sense of efficacy. Bandura (1986) identified four sources for developing a sense of efficacy: actual accomplishment, verbal persuasion, emotional arousal, and observation of others. The transformational leader is able to use these elements to empower an organization and the individuals in it.

Cherry and Speigel (2006), in their book, *Leadership, Myth and Metaphor: Finding common ground to guide effective school change*, present an interesting framework of metaphors to look at leadership types. They introduce the "Touchstone" leader as one who represents the unwavering focal point of the vision, and is viewed as the steadfast decision-maker and change agent dedicated to moving the school culture forward. The "Advocate" leader is one deeply committed to equity and fairness and is a champion of the cause beyond self. This leader is devoted to improving the lives in the community and institutions. The "Parent" leader is one who symbolizes the ethic of care, and who is committed to building relationships and nurturing the educational community (Cherry & Speigel, 2006). This contemporary view of leadership provides a different frame and a deeper look at the personal and provocative beliefs that drive leaders' purpose and vision. It can also push leaders to tap into their moral compass as a way that guarantees that they will be true to themselves and the people they lead (Brubaker & Coble, 2005). These theories on leadership reveal the importance of effective leadership, which is complex and requires the leaders to have the appropriate characteristics as well as vision, and to be able to successfully collaborate with others.

Leadership is said to be dynamic and requires the leader to possess certain characteristics. Bass (1985) proposed four different components of transformational leadership that can serve to guide school leaders. The first component is *intellectual stimulation*, where leaders not only challenge the status quo but also encourage creativity and exploration of new ways of doing things and new opportunities to learn. The next component, *individualized consideration*, encourages the leader to offer support and encouragement to individuals, keeping the lines of communication open in order to foster supportive relationships. The leader also recognizes the unique

contribution of individuals. The component of *inspirational motivation* dictates that the transformational leader articulate a clear mission to followers and engender the same passion and motivation in followers to fulfill the goals. The final component is *idealized influence*, where the leader is the role model and there is trust and respect, and followers emulate and internalize the ideals espoused by the leader. Having a sound leadership style will help leaders to engage in successful reform.

ELEMENTS OF SUCCESS IN SCHOOL REFORM

Managing school change and improvement is one of the most complex tasks of school leadership. Principals and other key school leaders should help teachers and other stakeholders build effective teams by developing new organizational structures and creating a shared vision that focuses on authentic student learning (Newmann, 1993; Maeroff, 1993). Such inspired and informed leadership is critical to the success of schools.

Implementing a reform initiative is not always easy because of the complexity of the context in which the change has to occur. Changes in school culture may have to occur along with changes in the organizational and physical structures. It is important to establish a supportive environment where there is shared leadership and an atmosphere of trust and collegiality and where continuous learning is valued (Blair, 2000). Shared leadership involves teacher collaboration and shared decision-making, and is often referred to as power through and not power over people (Blair, 2000). Reform efforts will be sustained over time because of the multiple forms of leadership and enthusiasm. In a collaborative school culture, if one leader leaves, other individuals are encouraged to assume leadership roles so that there is momentum to carry on the reform process (Blair, 2000). As Klein et al. (1996) suggest, "When participants perceive that the reform objectives reflect many of their personally held beliefs about education, they are more willing to join in the process."

Reform efforts have been somewhat successful in the United States, with a large number of states having learning standards, comprehensive evaluation systems and accountability standards in place. There are many more educational opportunities offered to children through the expansion of charter schools. The teacher induction programs such as KIPP and Teach for America are helping to increase the teacher talent pool and foster more effective schools (Guthrie, 2011).

The literature on school leadership strongly emphasizes the need for school leaders to help teachers create high-achieving learning environments for all students, where the most advanced curriculum and instruction techniques combine to support learning. In a high-achieving learning environment, teachers engage students in complex problem solving and exploring ideas and issues, and classroom activities draw on students' culture, experiences, and knowledge. At-risk students in particular need environments that engage them in authentic tasks and offer them significant opportunities to develop knowledge (Peterson, 1995). At the Wallace

Foundation's National Conference in 2010, Darling-Hammond stated "Excellent teachers deserve excellent leaders." She echoed the need for "educational leadership at the school, district, state, and federal levels that understands how to create thoughtful, equitable approaches that support teaching and learning for students, teachers and organizations." In an article on reform in Finland, Darling-Hammond (2010) talks about expanding access while investing purposefully in ambitious educational goals using strategic approaches to build teaching capacity. She describes a set of elements that, when well designed and connected, reliably support all students in their learning. These elements ensure that students routinely encounter well-prepared teachers who are working in concert around a thoughtful, high-quality curriculum, supported by appropriate materials and assessments—and that these elements of the system help students, teachers, leaders, and the system as a whole continue to learn and improve (Darling-Hammond, 2010). The task of the leader, then, is to recruit and retain high-quality staff that can accomplish these elements, and one of the main reasons that teachers decide whether to stay in a school is the quality of administrative support. It is the leader who must develop this organization (Darling-Hammond, 2007).

Guthrie (2011) shares five strategic elements for successful and comprehensive school reform: leadership, teacher quality, accountability, competition and performance for pay. He stresses the importance of leadership as the driving force that affects the implementation and improvement of the other four elements. He contends that to be successful, school leaders need better preparation and rigorous evaluation. They need to be given broader authority and more effective management tools to be able to turn schools around and improve the achievement of students (Guthrie, 2011). Some successful reform initiatives to improve school leadership are being undertaken in Houston through Rice University's Education Entrepreneurship Program and the Houston Independent School District to recruit, select, and train high-quality principals (Gurthrie, 2011).

Michael Fullan (1999) tells us that reform often fails because the results of the reform are not replicated. He states that we often only replicate the reform itself, and not the conditions that made the reform successful. Characteristics such as individual aspirations, needs, and contexts differ from place to place. Therefore, to take an innovation from one context and implement it in another without considering these factors can lead to failure. It is the conditions which gave rise to the reform that should be replicated (Healey & De Stefano, 1997). The element of trust also leads to effective communication and motivation of everyone involved in the change. Daft (1999) talks about the many pieces that the visionary leader brings together, such as linking the present to the future, encouraging commitment and imagination, and defining the destination. These are conditions that must be implemented if reform efforts are to be successful.

Policy decisions at the federal, state and district levels affect the decisions and work of principals and teachers. Research continues to dictate that principals affect teachers' work lives and neglecting school leadership will negatively impact

education reform (Guthrie, 2011). One researcher looked at principals' and teachers' perceptions of policies and practices focused on increasing the supply of qualified teachers, recruiting and distributing qualified teachers in hard-to-staff schools, and retaining qualified teachers over time. Current reform efforts are also targeting teacher quality and accountability in education, with competition and merit pay taking center stage. Research indicates that effective principals can indeed raise test scores by 10 to 15 percent (Marzano & Waters, 2005). However, although important to closing the achievement gap, these efforts have diverted attention from school leadership.

LEADERSHIP AND REFORM INITIATIVES

The education system has undergone numerous reforms over time, and the direction of American education has been informed by a number of educational reforms, whether dictated by external forces where U.S. students need to be more competitive, or internal mandates that we prepare students with a good understanding of the core academic subjects, so that they can solve problems, make decisions, and are prepared for productive employment in our nation's modern economy. We have seen change from the essentialist to progressive and back-to-basic curricula enforced in public education over time. The Common Core State Standards guides in mathematics and language arts are the newest initiative passed down for implementation by states. Successful curriculum reform to close the perennial "achievement gap" must be guided by insightful school leaders that include district leaders as well as principals and teachers.

Educational reform that involves changes in subject matter and teaching methods affects the curriculum and the methods of delivery. Some common forms that have influenced changes within the schools have included the use of computers in the classroom, whole-language instruction, concept-based mathematics, and multicultural education. Many professional organizations have been at the helm of such reform. For example the National Council for Mathematics, consisting of teachers of mathematics, has been involved in developing curriculum guides. More recently the Common Core Standards for K-12 education has been at the forefront of federal and state initiatives in education. New ways of teaching and testing students are being explored on a continuous basis.

Reform of school administration and governance procedures affects the way schools are managed and the changing roles of teachers and administrators. Site-based decision-making, shared leadership, and community involvement are all reforms taking place at school, district, and state levels. Federal educational reform under the No Child Left Behind law required school and district leaders to close the achievement gap by ensuring that all students attain academic proficiency. This bill placed huge sanctions on the system and the leadership of the schools. In the past there have been numerous studies indicating that implementation of reforms has not been so successful, in fact that no one thought of the focus and implementation of any reform.

There are many examples of how resources are utilized in an effort to raise achievement standards in schools across the United States. The Kansas Study examined resource allocation for the entire state and identified strategies of how some schools used their money, staff, time, and instructional strategies on resource management in an effort to have higher student achievement (Standard & Poor, 2006). The Comprehensive School Improvement Center also provides strategies on reallocating resources for school improvement. In their guide they explain the context of resource allocation at school and district level and examine challenges and how school and district leaders overcome these barriers to change with good decision-making and leadership skills. A booklet produced by North Central Regional Educational Laboratory (NCREL, 2000) focused on the use of resource reallocation to promote standards-based reform.

The University of Washington in their report on the School Finance Redesign Project (2008) explored the effects of micro-budgeting decisions on school districts' improvement plan. They looked at two districts using different strategies for school improvement and concluded that the different reform strategies work better with certain allocation methods that district leaders should consider. These various studies and reports share the ways that resources can be diligently allocated to improve schools and school districts but they are heavily dependent on skilled leadership.

SOME RECOMMENDATIONS TO SCHOOL LEADERS WHO ARE UNDERTAKING REFORM IN HIGH-NEED, LOW-ACHIEVING SCHOOLS

Although there are many recommendations that can be made to educational leaders on how to undertake and successfully manage educational reform in high-need, low-achieving schools, it is clear that school change can only come about with effective leadership. In these times of massive education reforms it is challenging to find individuals to transform schools from underperforming to places of excellence. There is not much in the literature about the characteristics of leaders who have implemented successful change in schools, however, many assumptions can be made about effective leadership. There is the expectation that the leader must also be the manager. As has been reiterated, there will be shared leadership within the school, and the teacher leaders are expected to assume leadership roles as well as be effective teachers (Bellon & Beaudry, 1992; Boles & Troen, 1992).

Leadership is a complex art and what is at stake is the "reculturing" of a school. School leaders need expertise to establish and lead a culture of high achievement. A critical role for the principal who wants to transform a school is that of interpreting student performance data with teachers and making decisions based on these data (Méndez-Morse, 1992). Darling-Hammond (2010) states that it takes effective leadership, including teacher leadership, with more than one individual's effort, to make schools successful. She suggests teamwork to undertake decision-making, curricular reform, restructuring or implementing new programs. She goes on to say

that team members need to have clear, shared goals and a sense of commitment for any teamwork to be successful. There also needs to be mutual accountability and access to resources and skills (Darling-Hammond, 2010).

Principals who can lead their schools to higher academic achievement must be willing to take risks to benefit their students. They must also be informed of district, state, and national policies that affect their schools, and must be able to find ways to implement these policies. They must also develop leadership teams with appropriate skills and share responsibilities to achieve school goals. Principals must also be strategic about relationships with parents, families, and community members to ensure a sense of trust that the school will promote student success, while maintaining a strong professional relationship with district and state administration as they advocate for policies and practice that would assist in student success (Méndez-Morse, 1992).

Leadership continues to be recognized as a complex enterprise, and as recent studies assert, effective leaders are more than managers. They have vision, develop a shared vision, and value the contributions and efforts of their coworkers in the organization. Transformational leadership holds promise to further an understanding of effective leadership, especially the leadership needed for changing organizations (Méndez-Morse, 1992).

Blair (2000) provides some strategies for success in school reform; they include:

- Creating a context conducive to change
- Developing and communicating a shared vision
- Planning and providing resources
- Investing in training and professional development
- Monitoring and checking progress
- Continuing to give assistance

Another similar framework articulated by Hord and Czerwinski (1997) in their leadership research is useful when implementing change. The steps of their framework include:

a. Articulating a shared vision where influence, authority, responsibility and accountability are distributed among all individuals who have ownership of the vision.
b. Planning and providing resources; where the environment is scrutinized for material and human resources, and planning is guided by the school development, professional development is a necessary resource.
c. Checking and assessing progress is essentially monitoring and evaluating progress and the continual support in the evaluation process (Hord & Huling-Austin, 1986).
d. Continuing to give assistance; apart from support, it is important to provide consultation and reinforcement. This stage involves coaching, problem-solving and technical assistance because of the complexity and ambiguity that comes with

change efforts (Hord & Huling-Austin, 1986). Creating a culture of continued encouragement will help leaders to cope with the pressures of change.

e. Creating a context conducive to change is maintaining a context that supports both the physical features of the school and the people factors (Boyd, 1992). When trust exists among the leader and teachers it increases their effectiveness, which results in students' successful learning (Hord & Huling-Austin, 1986).

Organizations of the future, especially schools, will find themselves in a rapidly changing environment, which will require a leader and followers who are invested in a transformational process (Carlson, 1996). This process will indeed need a visionary leader who embodies the sense of commitment to change existing organizational culture, through the communication of a vision, empowerment, and trust (Bryman, 1992).

CONCLUSIONS

This chapter looked at the issues of leadership that can affect school reform and consequently impact student performance. The vision of the principal should be a shared vision, and there should be common ground on which to build the reform efforts. When students come first in any organizational or curriculum reforms, then there is the belief that the students' learning is the first priority. Communicating and listening among all leaders will lead to the realization of the vision. The leader is always proactive and serves as a guide and facilitator. They take risks and allow others a safe environment in which to work collaboratively to create change.

Leadership is a complex enterprise that requires one to be a manager as well as a leader who embodies a vision and mission that encompasses success for all. Successful change relies on the characteristics of the leader and leadership models can be used as a guide to evaluate or to choose future leaders. The successes of other reform initiatives can serve as examples that can be replicated, and utilizing the desired characteristics of transformation and facilitative leadership can catapult change and successful reform will become a reality.

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5. MULTICULTURAL ISSUES

INTRODUCTION

According to Banks (2006) and Spring (2008), multicultural education in its current form has a fairly recent lineage. This lineage can be traced back to the United States Civil Rights Movement of the 1950s and 1960s. Prior to this moment in history, education was separate and unequal for cultural and ethnic minorities (as well as women and people with disabilities) and rested upon the foundation of assimilation. Because a liberal education seemed relevant only for members of the dominant group and vocational education was thought most relevant for people of color, multicultural education was not at the forefront of educational thought. Even as legal measures (the 14th Amendment of the U.S. Constitution, *Brown v. Board of Education of Topeka Kansas*, 1954 and 1955, The Civil Rights Act of 1964, and the Voting Rights Act of 1965) were enacted to ensure equality in education as well as other public spheres of life (housing and employment), lasting equality remains elusive for students of particular groups. While wholesale equality remains a chimera within United States social, political, and economic systems, the world is becoming ever more connected through the flows of people into various countries, the streaming of information via virtual networks, and the global economy (Appadurai, 1999). As the world speeds up, people relocate, and one monolithic ethnic group moves toward the domain of myth, it is more essential now than ever to educate our youth with the skills and knowledge that will allow them to function within this world and to do so in socially just ways; therefore, the hope of multicultural education must move beyond celebrating heroes and holidays into building a socially sustainable future through an integrated curriculum that presents the contributions of the many groups that built the United States.

This chapter explores the history behind multicultural education through first discussing the course of national educational policies by presidency, and exploring the evolution of standards and standardized testing. The chapter then explores inclusive education by illuminating both multicultural education and education for students with disabilities. Following the discussion of the background of inclusive education, the chapter discusses the consequences of educational standards and standardized testing upon various student populations. Before closing with some suggestions for expanding multicultural education, the current moment is discussed, illustrating an imminent need for meaningful multicultural education that interrupts dominant curriculum and educational paradigms. The chapter closes with some

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concrete suggestions of effective strategies to incorporate meaningful multicultural education. In order to understand the need for multicultural education, the history of national education policies and commitments must be explored.

NATIONAL EDUCATIONAL POLICIES: A JOURNEY FROM THE PAST TO THE CURRENT STATUS

The history of multicultural education is, perhaps, best traced through presidential policy (Federal Education and the States, 1945–2009). The Eisenhower presidency (1953–1960) saw major changes to the landscape of education within the United States. Changes surrounding education at the time included desegregation following *Brown v. Board of Education of Topeka Kansas I* (1954) and *Brown II* (1955), which brought about desegregation by force if necessary. Secondly, during the Eisenhower administration, the national government began to recognize the need to better educate people with disabilities through several initiatives aimed to integrate students with disabilities into mainstream classrooms; national financial support to train teachers, provide resources, and fund special education programs for these students. Finally, the National Defense Education Act quickly followed the launching of *Sputnik* and *Sputnik II* from Russia. Arguably, the Eisenhower era was the first time the national discourse surrounding education began focusing on deficits rather than assets in education. Further, it was the first era to integrate a range of previously ignored groups into mainstream education, turn the focus in education toward science, and begin widespread national involvement – financially and politically.

The focus of the Kennedy administration (1961–1963) revolved around disability and urban poverty, the latter of which most frequently affected people of color (Federal Education and the States, 1945–2009). The Civil Rights Movement, having gained momentum early in Kennedy's presidential term, was reaching maturation the summer prior to his assassination. Integration, coupled with educational and employment equality, was at the forefront of the movement, impacting educational policy in a variety of avenues through both the Kennedy and Johnson (1963–1968) administrations. Under Kennedy, policies addressing juvenile delinquency and vocational education proliferated, while Johnson oversaw the introduction and implementation of three iterations of the Elementary and Secondary Education Acts (ESEA), more policies aimed at access for people with disabilities, and laws pertaining to access for older students, veterans, and second-language learners. These three presidencies, Eisenhower, Kennedy, and Johnson, were focused on equity in education pertaining to people historically barred from equal opportunity. While the focus briefly shifted after the launch of both *Sputnik I* and *II*, the latter administrations quickly returned the focus to students from lower socio-economic backgrounds, people of color, and people with disabilities.

The Nixon administration (1969–1974) focused on equity in facilities, activities, and opportunities in education for women (Title IX), Native American education, and bilingual education (Federal Education and the States, 1945–2009). Title I funding

came under scrutiny at the beginning of Nixon's first presidential term, implicating a need for accountability in federal funding tied to the outcomes of student learning. This was perhaps the first time that the nation began to consider educational standards through linking federal aid to student achievement. Mainstreaming students with special needs came to the forefront of judicial scrutiny in two cases: United States Supreme Court case *Pennsylvania Association for Retarded Children v. Pennsylvania* (1971) and a federal Washington, D.C., court case, *Mills v. Board of Education* (1972). The Pennsylvania case found that the 14th Amendment applied to children with special needs and required the least restrictive educational setting. Financing the educational needs of students with special students was the outcome in the *Mills* case. Issues addressing funding related to mainstreaming students with special needs, such as separate education, is legally acceptable as long as the educational results are warranted. Expanding access to primary and secondary education through articulating requirements and providing funding was the primary focus of President Ford's brief administration (1974–1976). In 1975, the landmark legislation *Education of All Handicapped Children Act*, was passed by the U.S. Congress mandating all states to establish special education for children with disabilities across the country (Giordano, 2007; Skrtic, 1991; O'Dell & Schaefer, 2005; Winzer, 2002; Yell, 2006).

The Department of Education (DOE) was founded under President Carter (1977–1980) and expanded the role of the national government in educational policy (Federal Education and the States, 1945–2009). Prior to Carter's administration, court cases and national legislation had mandated several new programs connected to the Civil Rights Movement that impacted education: busing, special education, integration, issues related to juvenile delinquency, bilingual education, and equal opportunity for poor and disadvantaged children. Initially, funding from the national government for these programs was temporary, with the expectation that states would eventually pick up the expenditures. However, as national and state economies stagnated during Carter's term in office, funding these programs contributed to growing concerns of accountability (Carter, 1979; Kaestle, n.d.). The U.S. Congress and the American public wondered if the monetary contributions were positively influencing the groups they had targeted (Senate Report 210, 1979). As such, program evaluation and student assessment became priorities at the national level with the assignment of oversight of educational research and improvement as well as planning, evaluation, and policy development to the newly created Department of Education (Public Law 96–88, 1979). Initially, these calls for accountability, evaluation, and student assessment began with states enacting competency-based testing statutes for students graduating high school (Goss, 1981; Kaestle, n.d.). This state-level testing was the beginning of linking student performance on basic skills examinations to teacher, administrator, and school effectiveness on a national level (Carter, 1979; Giordano, 2005; Kaestle, n.d.).

While access and federal involvement expanded under previous presidents, President Reagan (1981–1988) sought to reduce involvement and funding at the

national level for public education (Federal Education and the States, 1945–2009). His administration reformatted and utilized block grants to both decrease the level of national funding and to return power to the states. The consequences of this particular funding system redistributed the monies previously earmarked for populations of students who had only recently gained access to education. Instead, the block grants flowed to states with no federally mandated requirements. Rather, states were to apply the monies toward issues they deemed priority, which in many cases circumvented court and legislative action of the past focused on equality for racial and cultural minorities, students with disabilities, English Language Learners, economically disadvantaged students, and female students.

Although state-wide testing began under President Carter's administration and the Reagan administration focused on decentralizing the role of the national government in public educational policy, the 1983 report *A Nation at Risk: The Imperative for Educational Reform* signaled a turning point in nationwide testing of students at critical transition points at every level of education through college. *A Nation at Risk*, the brainchild of then-Secretary of Education Terrel Bell, stated that students were steadily falling behind their peers in other developed countries, most notably Japan, since the launching of *Sputnik* (the Soviet Union satellite) and called for a nationwide system of testing through the use of standardized tests (Berliner & Biddle, 1995). So, while Carter's administration linked testing to financial accountability, Reagan's administration linked testing to a more eminent national concern. The United States was thought to be falling behind other developed countries, couched in the rhetoric of the Cold War. Further, national funding for education dramatically decreased and nationwide standardized testing dramatically increased. These two issues made it easier for the national government to tie funding levels to increasing test scores. Under the new model, states could lose block-grant funding if scores on standardized exams did not increase (Berliner & Biddle, 1995; Federal Education and the States, 1945–2009).

Consequences of such a program, focusing on increasing test scores, served as a disincentive to some school districts, with some districts setting the lowest possible standards allowable (Federal Education and the States, 1945–2009). As long as test scores remained low, schools could show consistent improvement; however, at some point the school may reach a place where there was little improvement to be shown and/or students who most needed the services that additional monies would provide could "test" out of needing those services, when in fact they still needed them, proving detrimental to students of color, students with disabilities, and English Language Learners. Further, the increased focus on testing led to an increasing number of dropouts. During Reagan's second term, Congress passed the Hawkins-Stafford Amendments, which in turn articulated consequences to schools if they did not show improvements. Thus began school reconstitution, where the local school district oversaw governance and power if no improvements were shown through standardized testing in the first year and this oversight was turned over to both the

state departments of education and local school districts. Further, the Hawkins-Stafford Amendments provided additional funding to schools showing measurable gains in student achievement on standardized tests, and repealed much of Reagan's earlier educational policies disconnecting financial support for targeted student populations; instead the additional funding focused on increasing achievement for all students. However, the onus of defining achievement remained with the states.

The presidency of George H. W. Bush (1989–1992) realized no new educational policies; however, gains were made toward more standardized curriculum, the articulation of state and national standards, and a continued increase and focus on standardized testing (Federal Education and the States, 1945–2009). National educational policy continued to ignore students from marginalized groups, focusing efforts and monies toward raising achievement for all students. During Bush's term in office the federal government's commitments to Civil Rights-era policies and multicultural education were further abandoned. School desegregation eroded, busing was abandoned, and schools shifted more toward English-only education, leaving little time for English Language Learners to acquire the academic language needed for success in the growing standardized testing environment. Finally, Bush brought leaders in business to the table to help delineate what schools might do better to prepare students to participate in the growing global economy (Federal Education and the States, 1945–2009; Kaestle, n.d.).

President Clinton's administration (1993–2000) furthered the standardized testing craze by implementing Goals 2000 (Federal Education and the States, 1945–2009). Goals 2000 built on ideas that emerged during Bush's presidency and added teacher quality and parental responsibility into the accountability mix. The funding strategy behind Goals 2000 was to support states in developing academic standards (which most states already had underway) and measurements of those standards to inform school reform. With the reauthorization of the Elementary and Secondary Education Act (ESEA), Clinton was able to restore Title I funding for programs to support low-achieving low-income students and districts so that all students could work toward meeting the same standards. Under the Reagan administration, Title I funding, which began as a part of President Johnson's War on Poverty, was subsumed into Reagan's block-grant programs and renamed Chapter I. The focus of Chapter 1 programing was all students instead of those most in need. Under the Clinton administration, Title I funding became the single largest funding stream from the national government for education based on the idea that Title I students would be held to the same standard as students in the mainstream. Both Goals 2000 and the reauthorization of ESEA, now named Improving America's Schools Act (IASA), mandated that states align academic standards with statewide assessments. Passing these statewide assessments that were aligned with agreed-upon academic standards became a graduation requirement in several states as standards-based assessment swept the nation (Berliner & Biddle, 1995; Federal Education and the States, 1945–2009).

Standards-based assessment continued to expand in importance during the presidency of George W. Bush (2001–2008) under the No Child Left Behind Act (NCLB) (Federal Education and the States, 1945–2009). This act built upon Goals 2000, adhering to the mandate that statewide assessments are aligned with state academic standards, but included three controversial goals: (1) all students would reach "proficiency" levels by 2014, (2) "adequate yearly progress" would increase each year that 100% "proficiency" was met, and (3) "annual yearly progress" applied to both the aggregated student population as well as the disaggregated groups: students of color, low-income students, students with disabilities, English Language Learners; all students would be impacted by NCLB. If schools failed at any part of any of these three goals, there would be sanctions against the school and the school would be labeled as failing. Sanctions ranged from schools formulating a two-year improvement plan for failures recognized in the first and second years to students getting vouchers to attend another school if their neighborhood school was still failing in the third year to school reconstitution for continued school failures in the fifth year, thus turning over control of the school to outside entities. Under NCLB, every student in grades 3–8 was tested in English, math and eventually science, thus significantly expanding high-stakes testing and increasing the national government's role in public education once again. This could lead to an achievement gap among students in our schools, which is an ongoing issue in many public schools around the nation. Manning and Baruth (2009) have already highlighted the need for multicultural education and how it can address this ongoing issue in our school system. According to them, underachievement among diverse students is an unsolved mystery in the U.S. and it can be addressed through culturally responsive practices. They also highlighted that academic performance can be maximized by using different teaching techniques and facilitating multiple areas of learning (example: academic, cultural) within various cultural groups (Manning & Baruth, 2009).

Currently, under Obama's presidency (2009–present), the ideas behind NCLB have been expanded to include further short-term funding (under a collapsing economy) through Obama's educational initiative, Race to the Top (Federal Education and the States, 1945–2009). The focus of the nation has once again returned to the global economy; therefore, the President has put the emphasis on standards and assessments that better prepare students to succeed in college, the workplace, and the global economy (Spring, 2014). A second emphasis of Race to the Top is developing data systems that not only measure student progress but have the ability to inform teachers and administrators on how to improve instruction. Thirdly, Race to the Top emphasizes recruiting, retaining, and rewarding effective teachers and principals. And finally, the initiative places a focus on turning around low-achieving schools. The rhetoric of Race to the Top is one of competition that is supported through the distribution of funds: schools who meet the standards will receive more funds, while schools not meeting the standards will receive little or no funds, thus further preventing change in schools and communities perhaps most in

need of the funds to make change. Further, the national government has put pressure on states to ease legislative restrictions on the number of charter schools in order to be eligible for these competitive monies. Research reveals that charter schools are also not fully successful in educating those learners who make it a multicultural environment. An example would be reduced enrollment of students with disabilities in these schools (Stern, Clonan, Jaffee & Lee, 2015; USGAO, 2012).

While national education policy has seen a number of policies aimed at standardizing curriculum, outcomes, and assessments, each Presidential administration since Carter's has further entrenched a system of testing. Since *Sputnik*, education has been under attack and has become a political hotbed of debate and national policy (Berliner & Biddle, 1995). Discussions of national standards became more frenzied with the presidency of President Reagan in the 1980s. Further, the narrative of public education failing the nation's children, and hence the competitive dominance of the nation, grew under *A Nation at Risk*. This report marked the beginning of standardized curriculum, comparisons of U.S. public education with international competitors, and the persistent narrative of failing schools, educators, and students. According to Berliner and Biddle, this single, poorly supported report began a manufactured crisis in education. Structural inequities illuminated through George W. Bush's No Child Left Behind Act have been well researched and documented by scholars over the past decade (Meier, 1988). The unintended consequences of NCLB include a punitive system where students, teachers, and administrators are punished for low test scores, the dropout rate has increased, and inequities due to race, class, gender, and disability are pervasive (Bigelow, 2000b; Rothstein, 2006/2007). Further unintended consequences include teaching to the test, elimination of arts-based programs and physical education in some schools, limited creativity and critical thinking in the curriculum, expansion of the use of scripted curriculum, and a growing culture of fear and failure among students, teachers, and administrators (Bigelow, 2000a; Christensen, 2000; McKenna, 2000; Wellstone, 2000).

Every era of educational policy has had impacts for various marginalized groups. Beginning with Eisenhower's administration, policy focused heavily on poverty, students of color, and low socio-economic students in order to level the playing field for many groups being integrated into mainstream education. President Reagan's administration began the defunding of many of the anti-poverty and racial-equity programs while increasing nationwide standardized testing. In the present moment, with the Obama administration's Race to the Top initiative, standardized testing is fully institutionalized nationwide and is tied to teacher, principal, and school performance, while also trying to link back to teacher-preparation program effectiveness (Spring, 2014). Over the last two presidencies, Bush and Obama, schools have been reconstituted or closed for not meeting Adequate Yearly Progress and the dropout rate has increased, primarily among students of color and students with disabilities (Bigelow, 2000; Christensen, 2000; Meier, 2000; Rothstein, 2006; Spring, 2014). Rather than channeling funding directly into struggling schools, Race to the Top promises expansion of charter schools and as a result, earmarked

funding for marginalized groups of students remains elusive (Spring, 2014). The responsibility of the U.S. government at the national and state level to students of color, students of low socio-economic status, English Language Learners, and students with special needs has been codified through various laws and pieces of legislation. These have had various impacts on both policy, as was articulated earlier, and on the methods by which students are educated. Inclusive and multicultural education has evolved in particular ways, usually in response to social and political moments; this is the focus of the next section.

INCLUSIVE AND MULTICULTURAL EDUCATION

The history of multicultural education is closely tied to the national policies related to integration of various marginalized groups. Children with disabilities were a group that was marginalized or oppressed in our society throughout history. They were denied admission to schools and were prevented from participating in activities in the schools and community. Please refer to the history of special education for more details (Winzer, 1993). The inclusion movement began in the 1970s as a result of mainstreaming and legislation requiring the least restrictive environment. There was a move towards an integrated system during the 1980s under the Regular Education Initiative. This pushed for integration with no separate special education classes and to fully include all students in age-appropriate general education classrooms. As the national government committed itself politically to equality and attached funding to facilitate integration, the need for more inclusive forms of educational curriculum grew. During 1986, Madeline Will, then-Secretary of the U.S. Department of Education, Office of Special Education and Rehabilitation Services, issued a call for redesigning special-education services. She emphasized special education largely for students with learning disabilities through shared responsibility between regular and special education teachers (Kleinhammer-Tramill, 2003). This regular Education Initiative (REI) was to improve teacher quality. Later there were several other initiatives that emerged to improve teacher quality, including the No Child Left Behind Act. Kleinhammer-Tramill (2003) has highlighted the various federal initiatives.

Multicultural education was not a consideration prior to the Civil Rights Movement. It comes from before mandated integration of different student populations. Education for racial and ethnic minorities was separate, as was education for students with disabilities (Giordano, 2007; Winzer, 2002). Education for racial and ethnic minorities centered upon assimilation into the dominant culture (Baptiste & Michal Jr., 2006; Spring, 2006), while the majority of students with disabilities were kept out of mainstream culture altogether through removal to asylums and boarding schools. After integration in the 1950s, color-blind education took the guise of multicultural education, based in part on Martin Luther King's *I Have a Dream* speech, when he stated he had a dream that his children would "not be judged by the color of their skin but by the content of their character."

As schools struggled with how to accommodate students whom they had previously not educated, color-blind education, thought to be the gold standard, became one mechanism by which educators could focus their attention, recognizing only that every person had similarities. The Civil Rights Movement tied together the struggle for equal education for students from impoverished backgrounds, students of color, and students with disabilities (Smith & Kozeliki, 2005; Tyack, 1974). According to Danforth, Taff and Ferguson (2006), there was no tradition in the U.S. prior to the mid-19th century regarding "…public care and education…" of children with disabilities (p. 3). The passage of Public Law 94-142 brought change within the U.S. and around the world (Margalit, 2000). Even after several reauthorizations, the basic foundation of the law remains the same, equal opportunity for all people with disabilities.

The reauthorization of the Individuals with Disabilities Education Act (IDEA) in 1997 and 2004 reaffirms the education of children with disabilities in regular education settings. The main purpose of IDEA is to ensure a "free appropriate public education" with emphasis on special education and related services to meet the unique needs of children with disabilities, prepare them for "…further education, employment and independent living…" along with the protection of the rights of these children and their parents (cited in Yell, 2006, p. 87). IDEA continues to protect the rights of children with disabilities as well as the rights of the parents of these children.

As the national government became more involved with educational policy regarding marginalized student populations, and scholars began studying the widening and persistent achievement gap between groups (Ramirez & Carpenter, 2006; Rothstein, 2006), it became clear that more needs to be done in order to educate students about the multicultural landscape within the United States. There are also ongoing issues like disproportionate representation, students from diverse backgrounds who do not have any disability being labeled as having intellectual disability or emotional disturbance (Friend, 2014). She has highlighted issues like poverty systemic bias that has led to the classification of children of color in gifted and special-education programs. These kinds of ongoing issues highlight the need for strengthening multicultural education.

In recent decades, scholars and researchers have begun to carve out space for critical multicultural education (Giroux, 2000; McLaren, 2000; Singh, 2005) and anti-racist multicultural education (Hooks, 2000; Sleeter, 2000, 2008). Where traditional multicultural education did little to upset the status quo, these two forms of education concentrate on identifying and moving beyond the systemic forms of racism. The status quo in turn is responsible for the persistent achievement gap, employment inequities, and various consequences of miseducation. McLaren (2000) defines a critical multiculturalism as having a transformative political agenda; therefore, critical multicultural education has the goal of transformative power to help students learn that "race, class, and gender are understood as the result of larger social struggles… [and] stress the central task of transforming the social, cultural, and institutional relations in which meanings are generated" (p. 221).

According to both Hooks (2000) and Sleeter (2000), anti-racist multiculturalism takes into account racism and white supremacy embedded within the social system as normal, similar to a critical race-theoretical perspective; however, when utilized as an educational imperative, anti-racist education is anti-assimilationist. As the United States becomes a much more culturally, racially, and ethnically complex country, it is becoming more important to create and center learning opportunities that interrupt the dominant systems of power in an effort to educate our youth in ways that will allow them to interact with people different from themselves in humane and respectful ways, going beyond merely assimilationist perspectives and educational opportunities.

CONSEQUENCES OF NATIONAL EDUCATIONAL POLICIES

The consequences of national education policies on different populations of students have been wide and far reaching. As discussed in the national policy section, students most at risk have fared more poorly in the current testing regime. Schools not meeting Adequate Yearly Progress (AYP) run the risk of decreased funding, teachers teach to the test rather than cover new material, and students who test below standard in the 10th grade are prevented from graduation, leaving them little incentive to remain in school. Unfortunately, these problems disproportionately impact schools in urban areas where the student population has a predominantly lower socio-economic status and is largely of color (Black, Latino/a, and/or immigrant) (Brantlinger, 2004). Students with disabilities are also affected by such testing. While students with disabilities are held to the same standards as mainstream students, these students are being pushed into special programs in an effort to better prepare them for taking the test. Carter, Wehby and Hughes (2005) discuss ongoing challenges and strategies to help students with test taking. The achievement gap continues to widen and shows little signs of slowing (Ramirez & Carpenter, 2006; Rothstein, 2006).

When national policy shifted its focus away from lower socio-economic (students) under the presidency of Reagan, funding sources shifted priorities from equality and inclusiveness towards standardized testing (Berliner & Biddle, 1995; Federal Education and the States, 1945–2009). This shift left the underfunded schools, and inclusion programs meant to provide opportunity to students in need, even less funded, thus making it more difficult for these schools to meet the needs of a diverse student population. Due to underfunded national mandates, schools and students from marginalized groups are now in the most tenuous position they have been in in the last 30 years. While President Obama recognizes the need to prepare students to engage in a global economy, the funding stream for his educational initiative, Race to the Top, does little to rectify the achievement gaps between Black students and White students, Latino/a students and White students, students in lower socio-economic (students) and middle- to upper-class students, inner-city and suburban students, and the schools in which they reside, due to continued underfunding (Spring, 2014).

THE CURRENT MOMENT IN MULTICULTURAL EDUCATION

Following the *Brown* decision, physical integration of the nation's schools was only one of several areas within public schooling in need of integration. Initial responses to the Civil Rights Movement included adding on to curriculum through ethnic studies courses and implementing the recognition of holidays, heroes, and ethnic celebrations (Banks, 2006). Recent trends in scholarship "question whether it [*Brown*] has had its intended effect" (O'Leary, 2006, p. 228). Schools are experiencing a resegregation, returning to a pre-*Brown*-like status. Only this resegregation gives the appearance of self-selection or choice rather than the legally mandated segregation of the early 1950s and before.

With the de-emphasis on multicultural education in states such as Arizona, which has dismantled ethnic studies programs in Tucson, or the rejection of bilingual education in states like California, it is imperative to imagine and create a new approach to multicultural education. The United States, in fact the world, is becoming all the more interconnected, and as the world grows more complex, individuals have a need to understand our integrated heritages in order to better negotiate the complex issues, problems, and fissures within society. As President Obama has stated and implied, the U.S. will benefit from making use of each person's talents and perspectives in addressing some of the problems and issues pertaining to the 21st century. Some of the 21st century skills and abilities that students need to acquire include the ability to negotiate and interact in an increasingly diverse society. Therefore, multicultural curriculum as it was necessarily conceived following the Civil Rights Movement as celebrations, classes, and holidays recognizing one cultural group or icon (Banks, 2005; Grant & Sleeter, 2005) may no longer advance the needs of this nation; instead, we need to imagine an integrated curriculum that does not minimize the work and contributions of people of color, ethnic and racial minorities, women, religious minorities, or people with disabilities. In order to build such a curriculum, it is necessary to address multiple layers of reform, because curriculum alone will have little influence unless the various subsystems within education are also addressed. Banks (2005) suggests that we must reform the very nature of schools and schooling with an attentive eye to the power relations between student and teacher, teacher and student with curriculum, school environment and culture, and personal biases and prejudices of those who work within schools. The changes must be systematic and deal with every element influencing schools and education.

Multicultural education has always contributed to school reform. In the 1960s and 1970s, following the Civil Rights Movement, schools and communities rushed to implement celebrations of diversity and holidays, celebrating cultural icons. However, the implementation of these changes was piecemeal, rushed, and perhaps poorly planned; it resulted in a splintered multicultural education that was loosely connected to traditional subjects and content within schools (Banks, 2005). Due to the separate curriculum, it is easier to cast aside much of this/these curriculum,

celebrations, or holidays as unnecessary in the light of standardized testing or as a nuisance that undermines mainstream goals and values.

Demographics in the United States are changing the racial, ethnic, and cultural makeup of the country (2010 United States Census). Also, immigration into the United States from non-European countries now outnumbers immigration from European countries (2010 United States Census). Further, racial and ethnic intolerance and hate groups have given rise to nativist hate groups (144 in 2007 to 319 in 2010) and patriot and militia hate groups (131 in 2007 to 824 in 2010), according to the Southern Poverty Law Center (2011). These trends speak to an increasing and imminent need for multicultural education in order to prepare students to engage with the complex problems facing the world (Neider, 2011; Spring, 2007, 2008, 2014; Suarez-Orozco, 2004). Citizens of the United States, those of European-American heritage and from other ethnic and cultural backgrounds, have a growing need for greater cultural sensitivity in order to navigate the complex social, political, and economic issues facing the nation, and in fact, the world.

POSSIBLE SOLUTIONS

Perhaps the strongest way forward is to incorporate three multicultural education-theoretical tools in a purposeful effort to build a more inclusive learning experience for all students. These three tools include critical pedagogy (Freire, 2011/1970), culturally relevant teaching (Ladson-Billings, 1995, 2009), and culturally responsive teaching (Gay, 2002). Critical pedagogy is traced back to Freire's *Pedagogy of the Oppressed* (1970). In this seminal work, Freire articulated "that the oppressed are not 'marginals,' are not people living 'outside' society. They have always been 'inside'—inside the structure which made them 'beings for others.' The solution is not to 'integrate' them into the structure of oppression, but to transform that structure so that they can become 'beings for themselves'" (p. 74). Integration of cultural diversity in the past came under the guise of color blindness. This practice did not question or critique the systems of power and oppression, but rather, attempted to demonstrate how all people are equal by adding on celebrations of traditions and holidays while working to assimilate students into one master narrative of society based on European-American values. Instead, Freire refutes assimilationist practices and calls for transformation of oppressive systems through "action and reflection of men and women upon their world in order to transform it" a "consciousness as consciousness of consciousness" (p. 79). One way of achieving this goal in a widely diverse society is through integrating culturally relevant pedagogy (Ladson-Billings, 1995) and culturally responsive teaching (Gay, 2002).

Coined by Ladson-Billings (2009), "culturally relevant teaching is about questioning (and preparing students to question) the structural inequality, the racism, and the injustice that exist in society" (p. 140). Historically, many students of color, English Language Learners, students with disabilities, and those with low socio-economic status have been operationalized as coming to schools with a deficit. These

groups of students have been marginalized in and by the curriculum, in classrooms, and by actors within the educational system. A color-blind education assumes "the remedy to be more domination and repression, carried out in the name of freedom, order, and social peace (that is, the peace of the elites)" (Freire, 1970). In culturally relevant teaching, the goal is to disrupt the status quo for marginalized students and help them identify and question the many systems of power that may be working against them and help them learn to navigate them. Further, culturally relevant teaching assumes an asset-based perspective. Teachers who operate in culturally relevant ways, (1) realize that students are key actors in their own learning and (2) "honor and respect the[ir] students' home culture," while (3) working to prepare students to respond to and question the world in which they live (Ladson-Billings, 2009, p. 151). Culturally responsive teaching extends these ideas and incorporates teacher responsibility to foster culturally inclusive classrooms.

Gay (2002) asserts that culturally responsive teachers need to have the skills and reflective abilities to be able to "determine the multicultural strengths and weaknesses of curriculum designs and instructional materials and make the changes necessary to improve their overall quality" (p. 108). In order for teachers to be able to do this, they first need to possess a knowledge base about cultural diversity. By having this knowledge base, teachers can then incorporate a wider diversity of human achievement into their curriculum, which portrays members of the various student groups positively within the classroom. Two key features of culturally responsive teaching include care and communication, care of and for the students whom they teach and communication with ethnically diverse students. In this way, the teacher becomes the student and a learning community can develop more fully.

The strategies described above, critical pedagogy (Freire, 1970/2011), culturally relevant teaching (Ladson-Billings, 1995, 2009), and culturally responsive teaching (Gay, 2002) are strategies that can be employed to increase the critical literacy for all students, preparing them to "develop their power to perceive critically *the way they exist* in the world *with which* and *in which* they find themselves" (Freire, 1970, p. 83). Below are some specific strategies that educators can draw from. These strategies are not mutually exclusive to the theoretical perspective with which we have aligned them; there is a lot of overlap between these three perspectives. Also, rather than repeating one strategy in multiple sections, it is only stated once. And finally, this list is not meant to include every possible way to employ that perspective; these are merely starting points.

- Critical Pedagogy
  - Know ourselves as educators: who are we, what are our social and cultural identities?
  - Learn our own biases, interrogate our assumptions, remain vigilant about these reflections
  - Help students to learn their biases and where they originate, teach them how to reflect upon and interrogate these biases

- Create ground rules and a commonly agreed-upon procedure for addressing racist, sexist, ableist, heterosexist comments in your class; use these as teachable moments
- Acknowledge and legitimize feelings of oppression and exclusion; address these as they arise

- Culturally Relevant Teaching
  - Recognize and honor that students have a right to educational self-determination
  - Provide opportunities for differentiated instruction and activities
  - Provide opportunities for students to guide their own learning
  - Recognize the connectivity between home and school
  - Build on the strengths of the home and community from which the student comes
  - Work to represent the home and cultural community from which the student comes in a positive light
  - Help students to identify and question the multiple oppressions and structural inequalities they experience in their home, community, and school lives
  - Build strong relationships with parents or family members of the students. Let them be partners in student learning. Many educators fail to recognize the powerful influence parents have on their children. A large number of parents from culturally diverse backgrounds continue to view schools as unwelcoming environments.

- Culturally Responsive Teaching
  - Learn about various cultures within the community in which the school district operates
  - Learn about the specific students in the classroom and their cultures
  - Work to incorporate curricular elements that represent the students in the classroom, the school building, and the community
  - Model caring and respectful behavior and dialogue for students and expect the same from them
  - Utilize popular culture in the classroom: learn what music students are listening to, what television shows and movies they are watching, and what news headlines are grabbing their attention
  - Be ready to learn from students in the classroom, as they are experts on their culture, community, and experiences; participate in a mutually beneficial learning community

It is high time that we address the issues of failing schools in our communities and help our future generation youth. *If you are waiting* for the change to happen through some other person, people or passage of time, you are forgetting the reality that students are in need of your help today and not tomorrow.

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6. SPECIAL EDUCATION ISSUES

INTRODUCTION

Although the concept of special education emerged centuries ago, public responsibility for the education and treatment of children with disabilities is a relatively new venture and has given rise to controversies, questions, and a range of opinions. Special education is driven by political, social, and economic factors, which only increases the volatility of the field. In 1970, U.S. schools educated only one in five children with disabilities, and many states had laws excluding certain students, including children who were deaf, blind, and children with emotional and developmental disabilities. State institutions were homes for many individuals with significant disabilities. P.L. 94-142, a key piece of legislation in special education reform, was enacted in 1975 to support states and localities in protecting the rights and meeting the individual needs of infants, toddlers, children, and youth with disabilities and their families. Since its passage, significant progress has been made toward meeting major national goals for developing and implementing effective programs and services for early intervention, special education, and related services for individuals with disabilities. According to the Department of Education, approximately 6.4 million students were enrolled in special education programs in 2012–2013.

REFORM IN LEGISLATION AND POLICY

When special education emerged centuries ago with Jean-Marc-Gaspard Itard, the doctor who now is recognized as the "father of special education," its delivery was inconsistent, with very few students receiving the services they needed to be successful. During its early years in the United States, special education existed as a system parallel to general education for several years; the two did not coexist as they do today. Students with disabilities received services in segregated school settings without interactions with their peers without disabilities. Special education's more formal beginnings are often attributed to the passage of the Education for All Handicapped Children Act (P.L. 94-142) in 1975. However, a history of legislation to provide services for people with disabilities dates back to 1817 with the formation of the American Asylum for the Education and Instruction of the Deaf (Ysseldyke & Algozzine, 2006). Table 1 below presents a cursory glance of other key legislative actions that paved the way for special education as it exists in the present.

D. Thornburg & A. M. Mungai (Eds.), High-Need Schools, 79–108.

Table 1. Key legislation impacting students with disabilities. (Adapted from U.S. Department of Education, Office of Special Education Programs. IDEAs that Work. Archived. History: Twenty-five years of progress in educating children with disabilities through IDEA. Retrieved from http://www2.ed.gov/policy/speced/leg/idea/history.pdf)

Legislation	*Year*	*Impact*
Education of Mentally Retarded Children Act, P.L. 85-926	1958	Mandated training provisions for teachers of students with mental retardation
Captioned Films Acts, P.L. 85-905/P.L. 87-715	1958/1961	Supported production/distribution of accessible films
Training of Profession Personnel Act, P.L. 86-158	1959	Helped train leaders to educate children with mental retardation
Teachers of the Deaf Act, P.L. 87-276	1961	Trained instructional personnel for children who were deaf/hard of hearing
Elementary and Secondary Education Act, P.L. 89-10	1965	Addressed need to improve education for educationally disadvantaged students
State Schools Act, P.L. 89-313	1965	Provided states with direct grant assistance to help educate children with disabilities
Handicapped Children's Early Education Assistance Act, P.L. 90-538	1968	Supported exemplary early-childhood education programs for young children with disabilities
Economic Opportunities Amendments, P.L. 92-424	1972	Increased Head Start enrollment for young children with disabilities

During the decades of the 1950s and 1960s, significant involvement of the federal government along with strong support and advocacy of family associations were noted for shaping policy in special education. For example, in 1958 and 1959, Congress appropriated funds to train teachers and leaders to educate children with intellectual disabilities with the passage of the Education of Mentally Retarded Children Act and the Training of Professional Personnel Act, respectively (Yell, Rogers & Rogers, 2012). Organizations such as the ARC began to develop and validate best practices for children with disabilities and their families, which in turn laid the foundation for implementing early intervention and other effective special education programs across the country.

The Captioned Films Acts of 1958 (P.L. 85-905) began the provision of captioned film loan services for individuals who are deaf, whereas the amended version of this act in 1961 (P.L. 87-715) supported production and distribution of educational and training films for use by people who are deaf. Consequently, the Teachers of the

Deaf Act of 1961 (P.L. 87-276) began preparing instructional personnel for working with children who are deaf or hard of hearing.

The passage of the Elementary and Secondary Education Act (ESEA) (P.L. 89-10) and the State Schools Act (P.L. 89-313) of 1965 was the first time the federal government provided federal money to states to improve educational opportunities for disadvantaged children, including students with disabilities who attended state schools for the deaf, blind, and those with intellectual disabilities. Other early efforts of federal support included the Handicapped Children's Early Education Assistance Act of 1968 (P.L. 90-538), which created exemplary early-childhood programs, and the Economic Opportunities Amendments of 1972 (P.L. 92-424), which increased Head Start enrollment for young children with disabilities. These and other critical federal laws laid the foundation for better access opportunities for children with disabilities and their families (U.S. Department of Education, 2007).

Litigation has had a major impact on the reform of special education services and policy. A landmark case that paved the foundation for special education and other civil rights policies was *Brown v. Board of Education* (1954). The results of this case guaranteed the right to an equal education for all children. Although the focus of this litigation was segregation of races, discrimination was the cornerstone of the argument. Successful defense of this case brought discrimination in education to the forefront, focusing on how we educate children with disabilities who were being denied equal access to a quality education.

Following the U.S. Supreme Court's decision in *Brown v. Board of Education,* parents of children with disabilities began to sue school districts for excluding or segregating their children with disabilities. They argued that by excluding their children, schools were discriminating against these children due to their disabilities. Other landmark cases such as *Pennsylvania Association for Retarded Citizens (PARC) v. Commonwealth* (1972) and *Mills v. Board of Education of District of Columbia* (1972) created the right to special education for children under the 14th Amendment to the United States Constitution (Yell, 2012). *PARC* deemed it unlawful for children with intellectual disabilities to be excluded from schools; the resolution of a consent agreement specified that all children with intellectual disabilities between ages 6 and 21 be provided a free public education that was most like the programs provided for their peers without disabilities (Yell, Rogers & Rogers). *Mills* found that the District of Columbia was not providing a public education to children with a variety of disabilities (e.g., epilepsy, physical impairments, behavior problems) and was failing to provide due process of the law when excluding, suspending, expelling, reassigning and transferring them from regular school classes (Wright & Wright, 2007). *Mills* resulted in mandating that all children with disabilities be provided a public education and due process safeguards.

Although much progress was evident immediately following the *PARC* and *Mills* decisions, many students with disabilities continued to be denied an appropriate public education. Even though the majority of states passed laws requiring that

students with disabilities receive public education, the implementation of those laws was varied and inconsistent. This revealed that more federal involvement was needed (Yell, Rogers & Rogers, 2012).

Recent federal involvement impacting children with disabilities in schools is chronicled as we examine the legislation from the 1970s through 2004. Title VI of the amendments of ESEA in 1966 added funding for grants of pilot programs designated for children with disabilities. In 1970, Title VI was renamed The Education for Handicapped Act of 1970. The funding also supported institutions of higher education in developing teacher preparation programs for children with disabilities. Additionally, the development of regional resource centers providing technical assistance to state and local school districts was authorized to be supported by federal funds (Yell et al., 2012). The intent of this act was to consolidate and expand grant programs to continue funding pilot programs at the state and local levels.

The first federal civil rights law to protect the rights of people with disabilities was Section 504 of the Vocational Rehabilitation Act of 1973. The special emphasis of this act focused on adults with disabilities in work environments, as well as ensuring equal-opportunity access to work for these individuals. Section 504 states: "No otherwise qualified handicapped individual in the United States…shall solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subject to discrimination under any activity receiving federal financial assistance…" (Rehabilitation Act, 1973, Section 504). A person with a disability is defined, according to this law, as any person who has a physical or mental impairment that substantially limits one or more of that person's major life activities. Subsequently, a person with a disability is a person who has a record of such an impairment or who is regarded as having such an impairment. The primary "purpose of Section 504 was to empower individuals with disabilities to maximize employment, economic self-sufficiency, independence, and inclusion and integration into society" (Rehabilitation Act, 1973). This law prohibits discrimination against a person with a disability by any agency receiving federal funds (Yell et al., 2012). According to this act, protection included children with disabilities in schools, thus allowing children with disabilities to receive the needed modifications and accommodations in public schools.

The Education Amendments of 1974 (P.L. 93-380) were amendments to the Education Handicapped Act of 1970. Each state receiving special education funding was required to offer full educational opportunities for all children with disabilities. Children identified as gifted and talented were acknowledged with these amendments and the issue of least restrictive environment was addressed. Many advocates for students with disabilities felt that this law was not sufficiently enforceable (Weber, 2008). Therefore, students with disabilities and those identified as gifted and talented were still not receiving adequate, appropriate quality education regardless of the legal mandates.

Opportunities for students with disabilities were still limited; despite the efforts and federal support for teacher training and technical assistance to state and local districts, many students were still completely excluded from school. In fact, in 1974, Congressional findings indicated that more than 1 million children with disabilities did not receive educational services. Also, more than 3 million children with disabilities who were admitted to school did not receive an appropriate education based on their needs (Yell et al., 2012).

In 1975, the Education for All Handicapped Children Act (EHA), P.L. 94-142, addressed these problems by combining an educational bill of rights with the promise of federal financial incentives. The primary purpose of this act was increased access to education for children with disabilities (Yell et al., 2012).

P.L. 94-142

Public Law 94-142 guaranteed a free, appropriate public education to each child with a disability in every state and locality across the country and had the following four specific purposes: to assure that all children with disabilities have a free appropriate public education (FAPE) which emphasized special education and related services designed to meet their unique learning needs; to protect the rights of children with disabilities and their parents; to financially assist states and localities to provide for the education of all children with disabilities; and to assess and assure the effectiveness of efforts to educate all children with disabilities (Education for All Handicapped Children Act, 1975).

Children protected under this act are served within the following current categories:

- Autism
- Deaf-blindness
- Deafness
- Developmental Delay
- Emotional Disturbance
- Hearing Impairment
- Intellectual Disabilities
- Multiple Disabilities
- Orthopedic Impairment
- Other Health Impairment
- Specific Learning Disability
- Speech or Language Impairment
- Traumatic Brain Injury
- Visual Impairments (Including Blindness)

Special education defined. Special education is an educational service provided to children with disabilities from birth to age 21. This type of educational service

includes specially designed instruction that is provided at no cost to parents and must meet the unique learning needs of each student. Instruction can occur in the classroom, home, hospitals, institutions, and many other settings. Special education services also include instruction in physical education (Bryant, Smith & Bryant, 2008; IDEA, 2004). Specially designed instruction is defined as making instructional accommodations, curricular adaptations, and/or related services based on the child's individual needs, to ensure access to the general education curriculum. Both general and special educators are responsible for providing a free and appropriate educational service to students with disabilities identified under the guidelines of IDEA.

Each student receiving special education services must have an individualized program that outlines the services he or she will receive. The individualized education program (IEP) is developed by a multidisciplinary team that includes the school or agency personnel, parents, and the individual with the disability when appropriate, and is a legally binding document (See an elaboration later in this chapter).

Subsequent changes of P.L. 94-142 have led to clarification of the law and expansion of services. In 1986, The Handicapped Children's Protection Act (P.L. 99-372) amended the EHA and granted courts the authority to award attorney's fees to parties who successfully sued under P.L. 94-142 (Civil Rights Monitor, 1986). Prior to this time, parents could not collect attorney's fees under EHA. Understanding the importance of early intervention, Congress also passed another amendment during this year that extended services to children with disabilities from birth through two years of age, The Education of The Handicapped Amendment, P.L. 99-957. In this law, federal incentives were provided for states to develop early intervention programs for infants and toddlers with disabilities who were experiencing developmental delays and considered at risk (Hallahan et al., 2012). It included an array of services provided by multiple state agencies, not just the state education agency. A main feature of this section of the law was the individualized family services plan (IFSP). The IFSP is similar to the IEP for older children but broadens the focus to include family as well as the child.

A critical change with the 1990 amendment (P.L. 101-476) was a change in name; it is now known as the Individuals with Disabilities Education Act (IDEA), which emphasizes "people-first language." The term "handicapped," which was used in P.L. 94-142 and its amendments, was replaced with "children with disabilities" in statute and regulations. Two new disability categories were also included, traumatic brain injury and autism. Additionally, this amendment addressed the other end of the continuum of childhood-age education by supporting transition services from high school to adult living. Now, each student's IEP is required to include transition plans or procedures for identifying appropriate employment and other post-school adult living options, no later than age 16 (Ed.gov: www2.ed.gov/policy/speced/leg/idea/history.pdf). Through this sustained Federal leadership, the United States today is the world leader in meeting the academic and social challenges that lie ahead of children with disabilities, both while in school and in later life (Ed.gov: www2.ed.gov/policy/speced/leg/idea/ history.pdf).

Bryant et al. (2008) noted that nearly 20 years after the first civil rights law related to people with disabilities, Section 504 of the Rehabilitation Act of 1973, Congress became convinced that Section 504 was not sufficient and did not end discrimination for adults with disabilities. Therefore, another landmark federal law was enacted, the Americans with Disabilities Act (ADA) of 1990. A theme of ADA is access; it ensures the right of individuals with disabilities to nondiscriminatory treatment in other aspects of their lives in addition to education. It provides protections of civil rights and access to employment, transportation, public accommodations, state government, local government, and telecommunications. The implementation of both ADA and Section 504 requires that students with disabilities receive benefits and services comparable to those enjoyed by their peers without disabilities. In order for the benefits and services provided to be considered "effective," they must provide students with disabilities an equal opportunity to obtain the same result, gain the same benefit, or reach the same level of achievement as other students (Wrightslaw, 2011). A more recent revision of ADA is the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. An important change with the Amendments Act is its revised definition of "disability" to broaden eligibility to focus on accessibility and accommodations. The revised definition of the Amendments Acts also applies to the Rehabilitation Act of 1973 and significantly changed eligibility requirements (Florida Department of Education, 2011).

After looking at the remarkable chronology of IDEA, we find it pertinent to spend more time examining the prevailing issues of its latest changes and recent legislation that is the primary focus of this chapter.

Notable Movements

IDEA, FAPE and LRE. As noted earlier, a free and appropriate public education (FAPE) has not always been available for students with disabilities. Initial eligibility categories included only 10 distinct disabilities, whereas today we have 13 categories with an additional "catchall" category (developmental delay) making 14 possible options in all. From the results of research using evidenced-based strategies and advocacy from parents and professional organizations, more distinct categories have evolved with more students being better served. For example, students identified with autism prior to 1990 were being served, but not with unique or appropriate instruction related to their disability. More often, instructional strategies and techniques that were identified as being effective with students with intellectual disabilites and emotional/behavioral disorders (E/BD) were used for students with autism. Not until the amendments of 1990 were students identified with autism systematically placed in environmental settings that specifically addressed their needs. Additionally, since the development of autism and traumatic brain injury as IDEA categories, there has been and continues to be a sweeping need to prepare teachers to provide effective instruction that advances these students' academic, social and emotional needs.

Since *Board of Education of the Hendrick Hudson School District v. Rowley* (hereafter *Rowley*), 1982, FAPE has continued to be a recurring issue in special education. In the *Rowley* case, Amy Rowley, a deaf student, was entitled to FAPE under IDEA. Prior to her attending Furnace Woods School, her parents met with school officials to determine her placement and special education services. Amy was placed in a regular kindergarten class with supplemental services as needed. Some of her teachers learned sign language and a teletype machine was placed in the main office of the school so that Amy could communicate with her deaf parents; a sign language interpreter was placed in Amy's classroom on a trial basis. It was later determined that Amy would benefit from the use of a hearing aid while remaining in the regular kindergarten. She had a successful year. When entering first grade, Amy's IEP required the continued use of the hearing aid and placement in the regular first-grade classroom. Additionally, she received instruction from a tutor one hour each day and speech therapy three hours a week. Amy's parents also requested a qualified sign interpreter in all Amy's academic classes, but school officials decided that an interpreter was not needed based on her previous year's performance. Amy's parents requested a due process hearing. The hearing officer agreed with the school district that an interpreter was not required by IDEA, particularly since Amy was doing better than the average child in her grade. Amy's case helped define the intent of the law, which was to provide FAPE. However, providing FAPE does not mean providing services to assist a student in exceeding average performance.

REI. Nearly three decades of issues related to FAPE has evolved to issues of equitable instructional environments, as well as where instruction will take place (LRE). In the mid-1980s the regular education initiative (REI) became the lexicon for defining the movement, advocating a merging between special and general education as one system responsible for children with disabilities' education versus a two-system paradigm (Davis, 1989). The goal of a one-system paradigm incorporated several parts: (1) eliminate disability labels; (2) all instruction to occur in the general education setting; and (3) strengthen achievement for children with disabilities and those who were low performers. The proponents of this debate believed that a unitary system could more appropriately and effectively educate *all* children. Opponents did not disagree with the one-system approach as much as they disagreed with the process and speed of converting to such a system.

As this debate continues, the core of the discussion revolves around FAPE and LRE. IDEA has always emphasized maximizing the opportunities for students with disabilities by placing them in learning environments with as many of their peers without disabilities as possible. Periodically, researchers and practitioners debate on the best ways FAPE and LRE may be implemented. Oftentimes, the debates result in some catchword that alludes to a mandate of the law, but in actuality it is not. Terms move from debate about the concepts to a practice of a placement. For example, following the debate of REI, some school districts referred to settings where children with disabilities were primarily served in the general-education content areas for

the majority of the day as REI classes. A preponderance of students who qualified to participate in these settings were those considered to have mild disabilities and those whose learning expectations were based on the standard curriculum. Special education services were provided in the "pull-in" model versus the "pull-out" model. This means that instead of students leaving the general education classes to receive special education services, personnel delivered their services in the general education classroom.

Inclusion. Earlier in this chapter, we discussed IDEA and its impact on special education and children with disabilities. Some of the effects of this law can be found in the areas of curriculum as well as the methods and practices of teaching. For example, access to the general education curriculum became a reality for students with disabilities in 1975 with IDEA, where the concept of the LRE authorized placement in the general education classroom (Sindelar, Shearer, Yendol-Hoppey & Liebert, 2006). Now parents and their children have legal rights to a FAPE in the LRE and are not powerless to local education agencies' (LEA) policies, procedures, and decisions (Hallahan, Kauffman & Pullen, 2012).

Inclusion is often misunderstood and sometimes resisted by teachers, and it is not always fully understood or supported by school administrators. It is a complex and demanding reform. It is a concept related to the practice of educating students with disabilities, regardless of the severity of their disability, in the general education classroom. Inclusion is not a placement option, but rather a blend of opportunities that enable individuals with disabilities to participate meaningfully in an educational setting (Grenier, 2010). The concept of inclusion parallels IDEA's mandates of FAPE and LRE, but nowhere in its language does IDEA mandate inclusion. Considering the reforms related to FAPE and LRE, IDEA stipulates that students with disabilities be educated in the LRE, but also requires that districts provide a continuum of placement options (Sindelar et al., 2006) (see Table). This continuum includes a variety of options to deliver special education services that range from pull-in programming or full inclusion to placement in special education schools, commonly referred to as center schools. This has been the case since the inception of IDEA. A large part of the argument and concern is how much inclusion is provided, full or partial. That leads to another round of debates and rationalizations. The truth is, states and districts have some latitude with regard to IDEA implementation. Therefore, special education practice varies from district to district and state to state (Sindelar et al., 2006).

Including students with disabilities in the general education curriculum, classrooms, and accountability system are key tenets of NCLB and IDEA, which are supported through research. Consequently, recent research on the benefits of educating students with disabilities with their peers without disabilities has helped to shift the conversation from whether to provide inclusive education to how to develop quality programs that include students with disabilities (Cole, Waldron, & Majd, 2004 in Cole, 2006, p. 2).

Section 504. As previously noted, Section 504 of the Rehabilitation Act of 1973 coincides with IDEA and ADAAA. Where IDEA provides federal funding support for students with disabilities, Section 504 prohibits discrimination from those agencies receiving federal support. ADAAA provides protection from discrimination related to a disability and must be adhered to regardless of funding support, be it public or private. Reform related to these laws lies more with the extended umbrella of the definition of disability and the type of major life activities that may be included (ADAAA, 2008). Under Section 504 a student with a disability meets any one of the three criteria. The student:

- has a physical or mental impairment that substantially limits one or more major life activities,
- has a record of such an impairment, or
- is regarded as having such an impairment.

The latest ADAAA, which encompasses Section 504, substantially changed major life activities to include: caring for oneself; walking; seeing; hearing; speaking; breathing; learning; working; performing manual tasks; eating; standing; lifting; bending; reading; concentrating; thinking; and sleeping (FL DOE, 2011).

Accountability. NCLB and IDEA have become crucial for holding schools accountable for the teaching and learning of all students, including students with disabilities. As these legislative acts have evolved during the last three decades, sweeping changes have occurred in public schools, particularly in urban settings.

Notable changes begin with the demographics of the student population. Aside from the learning differences associated with students with disabilities, over one-third of students in schools are culturally and linguistically diverse, and in most of the urban settings, students of color represent the majority population. Additionally, approximately 175,000 students with disabilities need services for English language learners (ELLs) (Bryant et al., 2008; Voltz & Fore, 2006).

The diversity of the students justifies providing a teaching force and resources to accommodate their learning needs. However, many of the teachers in the urban setting are not as diverse, sometimes causing cultural dissonance between the two groups. The White American middle class represents the primary teaching professionals. Dissimilar socioeconomic status, race, ethnicity, behavior patterns, and other cultural issues can impede the wholesome learning opportunities that are too much in demand in the urban setting.

Of particular concern has been challenges addressing the needs of students identified with emotional and behavioral disorders (E/BD) (Cho & Kingston, 2011). These students' academic and social-emotional needs have shown little to no growth over the years, which has been most noticeable in schools with poor to little reform. Cho and Kingston (2011) examined the level of engagement in reform activities of high schools based on a school improvement index. They clustered schools into high and low clusters of activities based on scores from reported responses during

school interviews. They found that those schools identified in the high cluster were involved in more collaboratively engaged activities with community agencies to increase mental health services for students with E/BD. The results indicated more opportunities for mental health providers to partner with schools and extend services that could support students with E/BD to better demonstrate academic and social-emotional growth.

Not necessarily a change, but a continuing issue in urban school districts is the disproportionate access to equitable resources. According the *Annual Report to Congress on the Implementation of the NCLB,* nearly two-thirds of 37 states reported that the percentage of core academic classes taught by highly qualified teachers was lower in high-poverty schools than in low-poverty schools (U.S. Department of Education, 2005a). Nearly 45,000 (11.25%) special education teaching positions serving over 600,000 students with disabilities, ages 6–21, were qualified according to the most recent data available from the U.S. Department of Education (2006).

The Advocacy Institute (2007) noted that since the passage of IDEA, many years of federal investments have been spent in research on effective instructional practices, teacher recruitment, pre-service and in-service training, and assistive technology. Not until NCLB issued requirements for highly qualified teachers did IDEA add these amendments providing for highly qualified special education teachers. This alignment set high expectations for academic performance of students with disabilities. Both IDEA and NCLB require that teachers have the knowledge and skills to implement instruction in the academic content areas in which they are to teach. The instruction must be aligned with state content performance standards and must provide maximum opportunity for students to achieve high levels of performance.

Prior to NCLB, IDEA required the inclusion of students with disabilities in state and district assessments. However, it wasn't until 2004 that IDEA was in concert with NCLB in mandating that student achievement results be disaggregated into subgroup categories based on race/ethnicity, income, limited English proficiency, and include a subgroup category for students with disabilities (Cole, 2006; Richter et al., 2012; U.S. DOE, 2010). As a result, students with disabilities experienced a number of benefits, such as inclusion in state and local accountability measures. For the first time, local, state, and federal governments considered the performance of all students with disabilities on statewide and alternate assessments as a primary indicator of how students, teachers, administrators, schools, and school systems were performing overall (Ward, Montague, & Linton, 2003; U.S. DOE). Another benefit is that students with disabilities are now taught age-appropriate content that teachers may have otherwise neglected in place of other student development skills (Richter et al., 2012).

Cole (2006) noted that many parents, advocates, and educators proclaim that NCLB is the most significant piece of legislation that affects the education of students with disabilities since the passage of IDEA in 1975:

> They celebrate the fact that students with disabilities now "count" in that they fully participate in assessments and their scores must be disaggregated so that progress is public. Indeed, most stakeholders agree that a major accomplishment of NCLB is that general education must now pay attention to the academic achievement of students with disabilities. Yet, the debate continues as to how best to assess students with disabilities and how best to provide access to the general education curricula for these students. (p. 2)

With IDEA's emphasis on students with disabilities being educated to the greatest extent possible with their peers without disabilities, it is true that these students will receive the majority of their instruction in general education settings (The Advocacy Institute, 2007). This means that for students who are ELLs, access to high-quality bilingual education and English as a second language (ESL) programs and services is a priority. If students receive special language support for part of the day, the general education teachers who work with them must have the skills and competencies to meet the students' needs. Yet because the focus of IDEA and NCLB's mandates has been primarily on academic content knowledge, there is no assurance that teachers who meet these requirements will have the requisite bilingual education and/or ESL competence to teach ELLs with disabilities in general and special education settings (Kushner, 2008).

To add to the challenges, recruitment and retention of teachers, particularly in special education, require creative innovations to keep a viable teaching force. Larger school districts are less likely to have a viable applicant pool than their smaller counterparts (Boe & Cook, 2006; U.S. Department of Education, 2001). Additionally, per-student funding in urban settings has consistently fallen short of funding for students with disabilities in suburban settings. Considering the complexity of needs in high-poverty schools in urban settings, more financial support is warranted.

DISPROPORTIONALITY IN SPECIAL EDUCATION

Three decades after the passage of the Education for All Handicapped Children Act (EHA; 1975), the field of special education finds itself in need of self-examination (Hart, Cramer, Harry, Klingner, & Sturges, 2010) with respect to disproportionate representation in the categories of emotional or behavioral disorders (EBD), learning disability (LD), and intellectual and developmental disabilities (IDD). Reauthorized in 1990 as the Individuals with Disabilities Education Act (IDEA) and in 2004 as the Individuals with Disabilities Education Improvement Act, this legislation constituted a landmark of 20th-century American education, underscoring the hard-won principles of the Civil Rights Movement (Hart et al., 2010). Disproportionate representation is defined as "the extent to which membership in a given (ethnic, socioeconomic, linguistic, or gender) group affects the probability of being placed in a specific disability category" (Oswald, Coutinho, Best, & Singh, 1999, p. 198). Disproportionate representation of minority students in special education remains a

Table 2. Recent legislation impacting students with disabilities. (Adapted from Murdick, N.L., Gartin, B.C., & Crabtree, T., 2007)

Legislation	*Year*	*Impact*
Education of the Handicapped Act (EHA), PL 91-230	1970	Elementary and Secondary Education Act amendments; consolidated existing grant programs
Rehabilitation Act, PL 93-112	1973	Section 504 supports rights of individuals with disabilities to be included in federally funded programs
EHA Amendments, PL 93-380	1974	Required states to develop plans providing full educational opportunities to children with disabilities and mandated use of procedural safeguards
Education for All Handicapped Children Act, PL 94-142	1975	Free and appropriate public education; least restrictive environment; Individualized Education Program; nondiscriminatory assessment; procedural due process; and parent participation
Handicapped Children's Protection Act, PL 99-372	1986	Provided for the awarding of attorney fees for prevailing parties in litigation under Education for All Handicapped Children Act
EHA Amendments, PL 99-457	1986	Provided funding for early intervention programs
Americans with Disabilities Act (ADA), PL 101-336	1990	Prohibited discrimination and mandated reasonable accommodations for individuals with disabilities
Individuals with Disabilities Education (IDEA) Act, PL 101-476	1990	Education for All Handicapped Children Act reauthorization; expanded services to students 18–21 and added transition and assistive technology services
IDEA Amendments, PL 102-119	1991	Changes made to early intervention program to include requiring an Individualized Family Service Plan for birth to age 3 children with special needs
IDEA Amendments, PL 105-17	1997	Required inclusion of students with disabilities in local, state, and district assessments
IDEA Amendments, PL 108-445	2004	Defined highly qualified teachers and focused on accountability measures
ADA Amendments, PL 110-325	2008	Revised the meaning of "disability" to broaden eligibility disputes in litigation so that courts could focus on issues of accessibility and accommodation

very controversial, unresolved issue, and continues to be regarded as one of the most significant issues faced by the U.S. public school system in the past 30 years (Dunn, 1968; Kauffman, Hallahan, & Ford, 1998; Coutinho & Oswald, 2000).

Placement data suggest African-Americans and Native Americans are overrepresented in high-incidence disability categories at the national level (Artiles, Kozleski, Trent, Osher, & Ortiz, 2010). There is also emerging evidence regarding the role of language background in placement decisions (Artiles, Rueda, Salazar, & Higareda, 2005). Sullivan (2011) noted studies of disproportionality have generally focused on the high-incidence categories of specific learning disabilities, intellectual and developmental disabilities, emotional and behavioral disorders, and, to a lesser extent, speech-language impairments (SLIs). However, these four categories constitute more than 82% of students receiving special education services (U.S. Department of Education, ED, 2009; The Advocacy Institute, 2007). Moreover, many researchers have concerns about these categories because their definitions are vague and inconsistent across contexts and diagnostic practices differ considerably among states, school systems, and individual practitioners (Klingner et al., 2005). Furthermore, as noted by Artiles et al. (2010), high-incidence disabilities are also described as "judgmental" categories, which means the diagnosis of these conditions relies heavily on professional clinical decisions, which often complicates the identification of students for services.

Though discrimination has a long-running history in the United States, special education's history of discrimination is often traced back to Dunn, who noted in 1968 the overrepresentation of ethnic and language minority students in special education and raised significant civil rights and educational concerns (as cited in Skiba, Simmons, Ritter, Gibb, Rausch, Cuadrado, & Chung, 2008). Over the next few decades, disproportionality was examined by numerous agencies and researchers, documenting the extent of over- or underrepresentation and the impact it had on special education. The 1997 reauthorization of IDEA attempted to address the issue of disproportionality in special education, calling for efforts to "prevent the intensification of problems connected with mislabeling and high dropout rates among minority children with disabilities." Disproportionality has not been ignored in recent legislation, with IDEA 2004 requiring states to monitor racial or ethnic representation in special-education placements and disability categories. Many causes of disproportionality in special education have been examined over the years. Psychometric test bias, socio-demographic factors (eg. poverty), unequal opportunities in general education, special-education eligibility processes, racial/ethnic behaviors, cultural differences, and a combination of the previous have all been blamed for the disproportionate placement of students in special education (Skiba et al., 2008).

Several statistical procedures are used to calculate the enrollment in special education. In some instances, the percentage of each racial group in the overall school population with their proportion in special education is calculated. Other studies report the racial composition of individual disability categories. Using

national data obtained from the U.S. Office of Civil Rights, Oswald, Coutinho, Best and Singh (1999) found that African-American students were 2.4 times more likely than White students to be identified as mildly retarded (MMR) and 1.5 times more likely to be identified as emotionally disturbed (SED). Asian/Pacific Islander students, on the other hand, were only about two-fifths as likely as their White peers to be identified as MMR and one-fifth as likely to be labeled SED (Coutinho & Oswald, 2000).

The issue of disproportionality at the level of individual states or districts has also been examined by researchers. For example, in a study of disproportionality in classes for children with emotional and developmental disabilities in Florida, Serwatka, Deering and Grant (1995) reported overrepresentation to be significantly inversely correlated with the percentage of the enrolled. In addition, the districts with more African-American teachers tended to have less over-representation of African-American students in classes for learners with emotional and behavioral disorders (Coutinho & Oswald, 2000). Hibel, Farkas and Morgan (2010) used nationally representative data from the Early Childhood Longitudinal Study, Kindergarten Class of 1998–1999 (ECLS-K) to identify variables measured that predict special-education placement by the spring of 2004 (when most students were finishing fifth grade). Hibel et al. (2010) had a number of findings (gender effect on placement, for example) that are consistent with prior research. However, the authors' findings for race/ethnicity that have indicated students who are Black, Hispanic, and Asian are underplaced or equally placed in special education compared to non-Hispanic Whites contrasts strongly with almost all prior research in this area (e.g., Oswald et al., 1999; Skiba et al., 2005, 2008). Hibel et al. (2010) issued recommendations for future research to include investigations regarding: (a) the types of services that are provided to students of minority race/ethnicity who have seemed likely to be placed into special education; (b) whether or not these students more typically retained in grade and (c) the extent to which schools provide such students with extra educational resources through programs other than special education.

Special education was influenced by the Civil Rights Movement; advocates who pushed for the first national special-education legislation drew inspiration from the Civil Rights Movement, ensuring minority issues remained at the forefront of any further change (Skiba et al., 2008). Those issues continue to spearhead the discussions of disproportional representation and special education.

ISSUES RELATING TO CURRICULUM AND PEDAGOGY

The field of special education has faced criticism over evidence-based practice and empirically based research methods and those practices are currently being questioned and criticized on a nationwide level (Hudson, Lewis, Stichter, & Johnson, 2011). As a result, one of the Institute of Education Sciences' (IES) goals is to transform "education into an evidence-based field in which decision makers routinely seek out the best available research and data before adopting programs or practices"

(U.S. Department of Education, 2005, p. 2). NCLB describes scientifically based research as research that includes the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs (Title IX, Part A, Section 9101[37], Cook, Tankersley, Cook, & Landrum, 2008). Special education exists to provide children with disabilities individualized instruction that is often not available in the typical educational setting.

In order to provide the most positive outcomes, instruction is often adapted to the interindividual and intraindividual differences found in children with exceptionalities by (a) changing the learning environment, (b) changing the lesson content, (c) modifying teaching strategies, and (d) including appropriate technology (Florida Department of Education, 2010; Kirk, Gallagher, Coleman, & Anastasiow, 2012). Keeping in mind that students receive instructional support through specially designed instruction and related services as determined through the individual educational plan (IEP) process, teachers are trained in designing and implementing individualized programs to address the learning needs of each student. Their training includes professional development along with administrative support in assuring they have reasonable class sizes/workloads and adequate funds for specialized materials and resources. Of key importance is that special education teachers instruct students with disabilities in the unique skills necessary to access and benefit from the core curriculum (FL DOE, 2010).

Service Delivery

The IEP and IFSP spell out what each child's individualized education should be (Bryant et al., 2008; Hallahan et al., 2012). Each IEP must include a statement of needed accommodations necessary to measure academic and functional performance of students under the assessments required by NCLB. Students' academic goals are based on each student's unique learning needs. Therefore, IEPs have a wide range of curricula and assessment techniques that differ from traditional curriculum. For example, students may require an aide or assistive technology devices (eg., closed-circuit television for students with visual impairments).

For many students the unique curricula and assessment techniques require accommodations and modifications as they complete assignments and tests. Modifications are changes in the curriculum, or the manner in which a student is expected to participate in district and/or state assessments. They usually include a change in what is being taught to or expected from the student. Whereas accommodations do not change the curricula, changes are made within the environment or delivery of instruction that assist the student to overcome or work around his/her disability.

Examples of common modifications or accommodations are included in Table 3. (FL DOE, 2011; NICHCY, 2010):

Parents today have more choices, states have more flexibility, and schools have more resources, and although many children with disabilities are making progress

Table 3. Accommodations and modifications

Scheduling	Giving the student extra time to complete assignments or tests
	Breaking up testing over several days
Setting	Working in a small group
	Working one-on-one with the teacher
	Using a study carrel to avoid distractions
Materials	Providing audiotaped lectures or books
	Giving copies of teacher's lecture notes
	Using large print books, Braille, or books on CD (digital text)
Instruction	Reducing the difficulty of assignments
	Reducing the reading level
	Using a student/peer tutor
	Highlighting important words in directions or tests
Student Response	Allowing answers to be given orally or dictated
	Using a computer for written work
	Allowing graphic organizers, diagrams, or charts for outlining essay responses
	Using sign language, a communication device, Braille, or native language if it is not English

on state assessments, many schools are not making Adequate Yearly Progress (AYP) because of the overall academic performance of the special education subgroup measured against a set standard established by each state for all students (Cole, 2006). Perhaps now more than ever before, the compounding issues relating to the roles and responsibilities of teachers, teacher quality, inclusion, assessment, and curriculum have all led to greater scrutiny of teachers and their impact on student learning. For example, NCLB requires the LEA to ensure that all teachers are highly qualified (HQ) in the content areas in which they teach and that children in special education are taught by HQ special-education teachers (Harvey, Yssel, Bausereman, & Merbler, 2010).

Co-teaching. Lingo, Barton-Arwood and Jolivette (2011) contend that the focus on academic outcomes and access to the general curriculum has increased the

pressure for accountability in the education of students with disabilities in general education classrooms. In other words, collaboration between general and special educators is more important than it has ever been. The changes in perspective on disabilities, effective practice, and providing services to students with disabilities have led to changes in how special education is not only conceptualized but also how teacher-preparation programs in special education are structured (Brownell, Sindelar, Kieley, & Danielson, 2010). This change is significant if we consider that the first programs that prepared special education teachers emerged in residential facilities directed by expert clinicians such as Seguin, Gallaudet, and Itard (Connor, 1976; Brownell et al., 2010). The focus for these early programs that continued into the 1970s was on training individuals to work with the various categories of disabilities. However, in the 1980s, the field saw a shift to a noncategorical approach (Brownell et al., 2010).

Today, the roles and responsibilities of the special education teacher are not as clearly defined as we continue to transition along the continuum of services from the more restrictive to the most individualized approach and settings to meet the needs of children within the broader community of their peers through collaborative, consultative, and co-teaching approaches. The concept of co-teaching emerged in the 1980s with the gradually increasing acceptance of inclusive schooling and the belief that special education and related services could be offered in general-education settings through partnerships that crossed the traditional boundaries between professionals (Bauwens, Hourcade, & Friend, 1989). Therefore, utilizing co-teaching strategies was justified in the general beliefs about the best ways to ensure inclusion and children with disabilities were able to access the general curriculum while at the same time benefiting from individualized instruction (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). For example, students in a co-teaching model classroom get the attention of two teachers, and this can be beneficial to both children with disabilities and their more typical peers (Nichols, Dowdy, & Nichols, 2010).

Because co-teaching provides a service delivery option for special education or related services in a general education setting, there are generally two or more professionals delivering instruction jointly to a diverse group of students. The co-teaching process allows professionals to assume the following roles as needed based on the needs of students: one teach, one observe; station teaching; parallel teaching; alternative teaching; teaming; one teach, one assist (Friend & Cook, 2010). It is worth noting with all the possible positive outcomes, co-teaching is the least employed avenue for inclusive instruction as reported by teachers (Kilanowski-Press, Foote, & Rinaldo, 2010). In addition, those who reported utilization of co-teaching models indicated somewhat larger numbers of students with disabilities in their classrooms than those who noted small-group and one-to-one supports as predominant (Kilanowski-Press et al., 2010). Furthermore, Nichols, Dowdy and Nichols (2010) found that the co-teaching models in the schools surveyed initiated

without proper staff development for regular education teachers, special education teachers, and school administrators. It appears that this supports the belief by many that co-teaching is being initiated primarily for compliance with NCLB and less for quality instruction for students with disabilities and their non-disabled peers (Nichols et al., 2010).

RTI. Another very important concept relating to curriculum and pedagogy in special education reform is response to intervention (RTI). RTI is best understood as a model used to guide efforts to teach (intervention) based on measures of student progress (response) and guided by the idea of prevention (Sailor, 2009). Both IDEA 2004 and NCLB call for improving the outcomes for all students by using scientifically based instructional practices. When implemented, an RTI approach would include documentation of appropriate use of scientifically based interventions before a student is referred for a traditional special-education evaluation (Cummings, Atkins, Allison, & Cole, 2008).

The elements of IDEA that align with the RTI framework include scientifically based research, early intervening services, prevention of overidentification and disproportionate representation, and special requirements for determining and documenting the presence of a disability (Mellard & Johnson, 2008). Many definitions exist for RTI but the common features presented by Sailor (2009) are:

- A three-tier system of matching interventions to assessed student academic and behavioral needs
- Systematic screening of young children using scientifically acceptable measuring instruments
- Interventions that have solid grounding in research and for which there is scientific evidence that they improve behavior or academic achievement, or both
- Progress monitoring of students identified as being at risk for low academic achievement, again using scientific measures
- Decision rules concerning levels of support provided through intervention

A National Research Center on Learning Disabilities (NRCLD) paper (Mellard, 2007) defines the following core features of strong RTI:

- High-quality research-based classroom instruction
- Student assessment with classroom focus
- Universal screening of academics and behavior
- Continuous progress monitoring of students
- Implementation of appropriate research-based interventions
- Progress monitoring during interventions (effectiveness)
- Teaching behavior fidelity measures

Mellard and Johnson (2008) posit the RTI model can serve three distinct functions within a school setting:

- Screening and prevention (RTI identifies students as at risk and provides early intervention);
- Early intervention (RTI enhances the general curriculum for all students and provides intervention and remediation); and
- Disability determination (RTI determines a student's responses to instruction and intervention as one part of disability determination).

There are three tiers that are formulated through assessment in RTI. Tier 1 refers to universal interventions provided to all students in each grade level. Tier 1 is comprehensive with activities that are selected on the basis of effectiveness. Tier 2 represents those students who need more intensive and specific instruction to be successful in school. Tier 3 represents a small subset of students who do not respond to the interventions provided in Tiers 1 and 2. Tier 3 activities include comprehensive assessment to identify whether a student has a specific disability and meets the criteria for special education (Brown-Chidsey & Steege, 2005). Progress monitoring results are then used to determine if a specific learning disability is present that would require a more scientifically valid method of identification than psychological testing, the more prevalent method of disability determination (Sailor, 2009).

RTI provides an opportunity for collaboration between all school professionals to focus on effective strategies that support student proficiency and meaningful access to the general education curriculum for all students (Cummings, Atkins, Allison, & Cole, 2008). Ideally implemented, RTI could help education move away from the deficit-based approach of labeling and sorting children and thus reduce disproportionality (Rueda, Klingner, Sager, & Velasco, 2008). Credit for introducing the RIT model into schools goes to special education, which has sought ways to bring greater scientific rigor to the process of determining who should be eligible for supports and services under the IDEA (Sailor, 2009).

Universal Design for Learning

Universal design is rooted in architectural principles that create "barrier-free" physical environments. It is an approach to designing environments and products so they can be used by the widest range of users without adaptation (Center for Universal Design, 1997). For example, a standard door with a large switch installed becomes accessible to more people, including those who use wheelchairs. The installation of sensors that signal a door to open when anyone approaches makes the building accessible to everyone—a small child, a man carrying a large box, an elderly woman, a blind person (Burgstahler, 2009; Smith & Tyler, 2010).

Borrowing from this conceptualization, education uses the term "universal design for learning" (UDL) as a way to guide the design of instruction and learning environments to accommodate individual learning differences (Center for Applied Special Technology [CAST], 2011). As an educational approach, it has three primary principles: (1) multiple means of representation; (2) multiple means of action and

expression; and (3) multiple means of engagement. The implementation of these principles helps maximize learning for students with a wide range of abilities, disabilities, ethnic backgrounds, language skills and learning styles.

As noted by Basham, Israel, Graden, Poth and Winston (2010), RTI and UDL share commonality in purpose and features that are congruent with IDEA's requirements of individualized services related to the LRE for students with disabilities. Basham et al., contend that both RTI and UDL emphasize these three tenets: (1) providing a comprehensive system focused on proactive research-based practices; (2) sharing an ecological approach focused on creating an effective system for instruction and intervention; and (3) making specific use of a problem-solving process that is premised on data-based decision making.

Basham et al. (2010) believed that UDL strengthens the requirements of RTI with educational decisions being based on the use of evidence-based strategies and ongoing monitoring. The implementation of UDL principles is critically important for general and special education teachers because of its incredible alignment with the use of evidence-based strategies and modern-day technology. The problem-solving component

> is a hallmark of both approaches at the system level (district-wide, school-wide) as well as within grade-level teaching teams and student-focused problem-solving teams. Using performance data, initial problem solving is focused on creating instructional environments where all students can be successful. For students who do not respond to initial instructional designs, problem solving addresses the newfound variables and develops solutions to more intensive or individualized problems. (Basham et al., p. 244)

The implementation of UDL does not eliminate the need for specific accommodations for students with disabilities. For example, students who are deaf will still need a sign language interpreter. Using UDL in instructional planning ensures full access to the curriculum for most students and minimizes the need for special accommodations. For a complete application checklist for integrating UDL in inclusive settings, consult *Equal Access: Universal Design of Instruction* at http://www.washington.edu/doit/Brochures/Academics/equal_access_udi.html (Burgstahler, 2009).

Some larger implementation issues to consider or examine are those related to overall school curriculum, administration, and personnel. For example, for universal design to be available and implemented successfully in schools, educators are advised to examine some of their thoughts about what they know and think about UDL and its effective use with a diverse student population. King-Sears (2009) emphasized that making instruction "smart" by considering pedagogical and technological features at the beginning of instruction is imperative during the planning stage so that there is less need to make adjustments during instruction. But is UDL truly universal? In highlighting the nuances associated with translating UDL theory into practice, Edyburn (2010) expressed concerns about the ability of the profession to implement

a construct that it cannot actually define. Edyburn noted that the definition of UD evolved from a concept in 1998 to a scientifically validated framework in 2008, with very little research on UDL to substantiate its establishment as a scientifically validated intervention.

Given the need to clearly identify, implement and measure the effects of UDL, Edyburn (2010) proposed the concept of identifying what it is not. For example, UDL is not just good teaching, nor is it somewhat similar to what has always been done in practice. As evidenced by a historical look at the field of special education, according to Edyburn, "What we have always done is known as the achievement gap" (p. 38). In other words, students from marginalized groups like special education or children with disabilities, English-language learners, and students from impoverished backgrounds repeatedly experience school failure. Clearly, the field cannot afford to continue to do what has always been done, and that is, leave children behind in academic progress. Furthermore, Edyburn emphasizes that to meet the unique needs of a variety of learners, it is imperative that a proactive and innovative instructional design also include the nature of the individual differences to inform instruction to meet the needs of unique learners. Edyburn posits 10 propositions and provides a historical context related to rethinking and moving forward with UDL in education.

LEGISLATION AND ASSISTIVE TECHNOLOGY

Assistive technology is defined as: "… any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities." An assistive technology service is defined as: "… any service that directly assists an individual with a disability in the selection, acquisition, or use of an assistive technology device," 20 U.S.C. § Chapter 33, Section 1401 (p. 250). Assistive technology (AT) is primarily designed to allow individuals with disabilities access to information. With the use of adaptive technologies, computers can become the eyes, ears, voices, and hands for many individuals. Special education programs in American public schools provide resources such as AT and AT services to students with special needs. Many consider the use of the AT to be the great leveler or equalizer for those students with disabilities (Flippo, Inge, & Barcus, 1995).

Federal requirements and support for special education and AT began with Section 504 of the Rehabilitation Act of 1973. The passage of this legislation is significant because it impacts all students with disabilities, even those who are not eligible for special education services and do not have IEPs. This is important to students who, though they may not have an IEP, are entitled to educational accommodations, including AT and AT services, in order to access educational opportunities (Dell, Newton, & Petroff, 2008; Copenhaver, 2004).

In 1975, EHA began the process of (a) ensuring equal access for children with disabilities, (b) funding educational opportunities and programs from which many

students had been excluded, and (c) started identifying assistive devices and services to support students' education. Under IDEA, each state must establish procedures to assure that, to the maximum extent appropriate, children with disabilities … are educated with children who are not disabled, and that special education, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily (20 U.S.C. § 1412(5) (B)).

Although IDEA 2004 regulates the education of students with disabilities in P-12 settings, it was the 1997 reauthorization that changed the role of AT. This reauthorization clearly defined AT and required consideration of the AT needs of every student receiving special education services. IDEA 1997 also adopted the definition of AT established by the Technology-Related Assistance for Individuals with Disabilities Act of 1988 (Tech Act). This law was passed by Congress to provide funding for the development of consumer information and training programs for individuals with disabilities. As a result, this action led to an increase in not only the number of students who were considered for services but also the range of technology-related services as well.

Legislative regulations have significantly impacted the responsibilities and subsequent actions of school officials when they consider a student's AT needs. The emphasis of individualization, increased student participation in the least restrictive environment that is free and appropriate has to be at the core of the decisions made on behalf of students. In addition, consideration must be given to whether or not the technology in place can be extended from school to home if a need is determined. The following federal legislative actions described in Table 4 have all impacted the use of computers/technology in education for individuals with disabilities.

SUMMARY

The roots of special education can be traced back for centuries to the early work of Jean-Marc-Gaspard Itard, who is recognized as the father of special education. Still much legislative reform was needed in the decades that followed to ensure that consistent application of services was provided to children with disabilities. The EHA of 1975 and its subsequent amendments (IDEA) have largely been responsible for providing access to public school for all children with disabilities regardless of the level of severity.

Section 504 of the Vocational Rehabilitation Act of 1973 was the first civil rights act to protect the rights of people with disabilities. This act prohibits discrimination against people with disabilities by any agency that receives federal funding. Protection against discrimination is extended under Section 504 to children with disabilities in public schools as well as to adults in community settings.

A FAPE is guaranteed to all children with disabilities in this country under IDEA across 14 categories. Children with disabilities from birth to age 21 are entitled

Table 4. Assistive technology legislation

Legislation	*Date*	*Assistive technology impact*
Rehabilitation Act 93–112	1973	Reasonable accommodations and LRE mandated in federally funded employment and higher education; AT devices and services required
Vocational Rehabilitation Act, Section 504	1973	AT can be used as an accommodation to enhance student participation in school activities
Education for All Handicapped Children Act (EHA) 94–142	1975	Reasonable accommodations and LRE were extended to all school-age children; IEPs mandated; AT played a major role in gaining access to educational programs
Preschool and Infant/ Toddler Program – amendments to EHA	1986	Reasonable accommodations and LRE were extended to children from ages 3 to 5; expanded emphasis on educationally related assistive technologies
Technology Related Assistance for Individuals with Disabilities Act (Tech Act) 100–407	1988	First federal legislation directly related to assistive technology; defined AT devices and services; stressed consumer-driven systems and systems changes
Individuals with Disabilities Education Act (IDEA) 101–496	1990 & 1997	Specifically defined assistive technology devices and services as well as delineated how they apply to education and transition services; reauthorization required AT needs be considered in an IEP
Assistive Technology Act ATA 105–394	1998	(Reauthorization of the Tech Act) Under Title I in the new ATA, states and funded territories are required to: • Support public awareness programs • Promote inter-agency coordination to improve access • Provide technical assistance and training • Provide outreach support

to receive appropriate special education services. This entitlement affords them opportunities to learn in general education services to the greatest extent possible.

Inclusion is the practice of educating students with disabilities, regardless of their level of disability, in the general education classroom alongside their peers without disabilities. Inclusion is not a mandate of IDEA; however, inclusion parallels IDEA's mandates of FAPE and LRE. IDEA also mandates that a continuum of special education placement options be provided by local school districts.

Each student receiving special education services is required by IDEA to have an IEP. Each IEP is required to address needed accommodations and modifications so that students with disabilities can have the greatest access possible to the general education curriculum.

Both IDEA and NCLB hold school districts accountable for teaching and learning of all children, including students with disabilities. The academic progress of children with disabilities now counts as part of state assessments and must be publicly reported. A major accomplishment of NCLB is that general education must pay attention to the academic progress of students with disabilities.

Disproportionate representation of students from minority groups in special education is still controversial and unresolved. The recent reauthorization of IDEA requires states to monitor racial or ethnic representation in special education placements. African-American students are more likely than White students to be identified as having an intellectual disability and/or emotional disturbance

Universal design provides greater access to all aspects of the community for people with disabilities. The principles of universal design were first outlined in the ADA and require that physical environments be made more accessible so that people with disabilities can participate more fully in activities of daily life. Examples of universal design include sidewalk curb cuts and handles that push down to open doors.

Federal requirements and support for assistive technology began with Section 504 of the Vocational Rehabilitation Act of 1973. AT is considered to be the great equalizer for individuals with disabilities as it affords greater access to information and educational services. AT is defined as any item, piece of equipment or product system that is used to increase, improve or maintain functional capabilities of people with disabilities. Assistive/adaptive technologies allow computers to become the eyes, ears, voices and hands for many individuals with disabilities.

In conclusion, in this chapter, we have discussed major key concepts that define special education as listed below:

- How special education was shaped by reforms in legislation and policy
- Key legislation impacting students with disabilities
  - IDEA, Section 504 and NCLB
- The definition of special education
  - Disability categories
  - Placement options
    - Continuum of placements
    - Inclusion
  - Terminology
    - FAPE
    - REI
    - LRE
    - RTI

  - NCLB
  - ADA
- Disproportionality in special education
  - Racial and ethnic discrimination
- IEPs
  - accommodations and modifications
  - accountability
- Universal design
- Assistive technology

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7. TEACHERS IN HIGH-NEED SCHOOL REFORM

This chapter is written to highlight the pivotal role of teachers in high-need school reform, reviewing research findings over the past four decades since the publication of *A Nation at Risk* in the United States and reports from a variety of sources around the globe. While there have been extensive summaries of how teachers changing their instructional practices, improving curriculum plans and assessment designs, and serving in leadership roles can significantly influence the outcome of a reform initiative, we draw on the wide range of educational literature and our own research in an effort to frame some of the dynamics and optimal conditions for positive school change. We hope to go further, illuminating the forms of support that optimize teachers' efforts to undertake reform in high-need schools in the United States and elsewhere. In several respects, the challenges in this chapter are at two levels: (1) questioning the oft-made assumption that "high-need schools" are distinct with regard to the larger research literature on schools and reform (appearing to make research less relevant) and (2) questioning the even more frequent assumption that teachers are the barriers to change rather than the strong agents for it.

REDUCTIONISM AND REFORM: TEACHERS AND STUDENT TEST SCORES

While educational reform had been a part of the history of schooling throughout the 20th century, the 1970s marked the beginning of the current era of school change in the United States, reflecting the Civil Rights Movement and concerns about equity and access for students. The sense of urgency about reform was increased in the 1980s in response to findings that American students lagged behind other nations in achievement (Tyack & Cuban, 1995). The past 50 years in the United States have involved school reforms that are tied up with the relentless focus on student achievement on high-stakes tests as the main indicator of school success and ultimately, the teachers' assumed central role in this. The 1983 publication of the National Commission on Excellence in Education's powerfully influential report provided important momentum in this belief, reporting that the U.S. school systems were being outstripped by other nations based on student test scores.

This has been reinforced over the years by research that claimed that students in the United States were lagging behind peers in other countries. In 2012, for example, the United States test score results as measured by the Program on International Student Assessment (PISA, conducted by the Organization of Economic Cooperation

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and Development) were average in science among 65 reporting nations and below average in mathematics (NCES, 2015).

While we agree with arguments that measures of accountability based on single test scores are problematic, the use of single measures has nevertheless informed the discussion of educational policy-makers in this country over several decades. Ongoing debates have been organized around the validity of high-stakes tests, rarely straying from them even in the repudiation of their worth (Croft, Roberts, & Stenhouse, 2016; Ravitch, 2010). It has also done so internationally, with recent calls for educational reform at the global level as well as challenges to the student achievement test as a meaningful indicator of school effectiveness (Evers & Krieyber, 2015).

By the 1990s, disparities with other countries' school systems, in part, reflected an achievement gap in student performance within American schools by race/ethnicity, economic status, and disability. In fact, these subgroups appeared to overlap in that they represented the lowest level of all measures of student progress (Lee, 2004). The obvious need for reform sparked an intensified study of what would constitute effective change at the levels of policy, program, and practice. During this decade, the efforts to improve high-needs schools became a school turnaround movement with mandates to change teacher performance quickly and dramatically (Duke, 2012).

In the late 1990s, the research-based models of comprehensive school reform emerged in the literature, accompanied by support for national networks. The No Child Left Behind (NCLB) legislation followed, which sought to remedy the low academic performance of many schools and the continuing gap in student achievement. The models emphasized student learning and achievement for the purposes of accountability. However, as Hargreaves (2006) pointed out, the initial gains in test scores would often plateau after a year or two (Fullan, 2003; Stein, Hubbard, & Mehan, 2004) and "deep improvement that lasts and spreads remains an elusive goal of most educational change efforts" (p. 3).

While test scores may not increase in a sustained way, other measures of student success have, such as increases in graduation rates and decreases in dropout rates. Since 2000, for example, the number of high school dropouts has steadily declined. In 2013, the dropout rate for 18- to 24-year-olds dropped to 7%, with Blacks dropping out at a rate of 8% and Hispanic rates at a record low of 14%. There has been a rise in college attendance of both Black and Hispanic students, as well (Alliance for Excellent Education, 2015; Krogstad & Fry, 2014; U.S. Census Bureau, 2014). Many have pointed to regulations as the reason, enacted in 2008 and 2011 by presidents Bush and Obama, that targeted the lowest-performing schools for corrective action (Alliance for Excellent Education, 2015).

HIGH-NEED SCHOOLS AND REFORM EQUATIONS

These lowest-performing schools are frequently overlapping with high-need schools, defined as "Title I" schools through the amended Elementary and

Secondary Act, with high numbers or percentages of children from low-income families. Regardless of the positive trends in student outcomes noted above, disparities continue in achievement across racial groups and are even more pronounced in high-need schools. Termed "dropout factories," 2,000 schools across the country are seen as responsible for 50% of all dropouts in this country (Balfanz & Legters, 2006). In the most recent report, the number of schools on this list has dropped to 1,000 (Alliance for Excellent Education, 2015). It is an overall premise of this chapter to explore the conditions within these schools as the primary problem and challenge for reform initiatives rather than looking at the students, who are often from low-income and minority families.

Resources and funding are significant impediments to change in high-need schools. A decade ago, the journalist Jonathan Kozol described the challenges in this way:

> As racial isolation deepens and the inequalities of education finance remain unabated and take on new and more innovative forms, the principals of many inner-city schools are making choices that few principals in schools that serve suburban children ever need to contemplate. (Kozol, 2005, p. 63)

We believe that this continues to be the reality perceived by educators in high-need schools. Recent large-school studies have repeatedly found that educators in these schools express less discontent with the students than with the working conditions of their classrooms and buildings (Boyd et al., 2011; Ladd, 2009, 2011).

Other chapters in this volume cover the history of reform in high-need schools as well from a variety of perspectives. Because of our focus on teachers here, we are making the argument that legislation has increasingly tied student outcomes to teacher performance. President Barak Obama's Race To The Top (RTT) from 2010, for example, was the most recent effort to tie federal funding to effective reforms and assumed that teachers must improve for there to be increases in student achievement (Manna, 2010). School reformers have portrayed teachers as both the problem and solution for improving schools over the decades (Johnson & Fargo, 2010).

While other factors are cited, poor quality of teaching in these schools, more than the effects of race or parent education, is frequently seen as tied to lower student achievement and other outcome measures (Darling-Hammond, 2010). A few years ago, for example, data from the Education Trust (reported in Haycock, 2008) indicated that teachers were twice as likely to have less experience and lack certification, and 70% would be teaching outside of their areas of specialization. It became a central agenda of RTT to place highly qualified teachers in high-need schools with a range of strategies for doing so across the United States (Crowe, 2011). In New York, the teacher accountability system, the Annual Professional Performance Review (APPR), is based on student test data that was tied to RTT funding. As Leonardatos and Zahedi (2014) argued, this funding has "…changed the role of educators, eroded autonomy in publicly controlled schools, promoted a culture of mistrust, diverted funds from the classroom to meet governmental

directives, and paved the way for corporate vendors to profit from taxpayer money…" (p. 1).

At the same time, highly qualified (because of demonstrated content and/or pedagogical knowledge) teachers who are recruited for high-need schools continue to be provided few incentives to accept offers of employment or to stay in their jobs. Darling-Hammond (2010) notes that less than 20% of attrition of teachers is due to retirement—especially in high-need schools—with many leaving over dissatisfaction with work conditions or lack of preparation. She quotes figures from earlier studies that state that the turnover of teachers in these schools is 50% higher with salaries that are one-third less. Poor resources and working conditions and the stress of working with students with a wide range of needs add significantly to teachers exiting high-need schools (Darling-Hammond, 2010). One in five teachers exits every year from these schools (Vaidya, 2014). With the changes brought about by accountability systems tied to funding, even more teachers are exiting schools before retirement.

The cost of teacher turnover in high-need schools is huge in terms of both financial and human capital because of recruitment and training. Hargreaves and Fullan (2011) have argued that these two forms of capital are driving reform initiatives in the United States, England and other European countries in an overall "business capital" strategy that views education as a new for-profit market to invest in with technology, curriculum and testing materials, and teachers. Teachers in this strategy should be young, flexible, temporary and inexpensive. In other countries, such as Finland and South Korea, school reform is seen from a "professional capital" strategy, where teachers are seen as a longer-term asset and are therefore required to be highly-trained, highly committed, continuously developed and highly paid (Hargreaves & Fullan, 2011). The turnover undercuts the organizational culture and efforts for sustained instructional programming, further undermining the conditions in high-need schools (Johnson, Kraft, & Papay, 2012).

In the United States, there has been an effort over the last decade to invest in teachers in many of the ways described above through a teacher continuum model, put forth by the National Board of Professional Teaching Standards (NBPTS). As a certification based on continuing professional education and growth, there is research by the organization arguing that students learn and achieve more from NBPTS-certified teachers. The number of teachers achieving this certification has grown nationally to 112,000; about three percent of all teachers in the United States. The incentive is often additional pay for NBPTS teachers and some states pay teachers in high-need schools extra money to undertake the program (National Board of Professional Teaching Standards, NBPTS, 2016).

As efforts continue in the form of bonuses or "combat pay" to induce teachers to come to and remain in high-need schools, they appear to be faltering because, as Darling-Hammond puts it, they are in "dysfunctional schools structured to remain that way"… (p. 25). Teachers find principals who are strong instructional leaders, colleagues who have similar goals and ethics, the teaching conditions

and instructional materials they need, and learning supports that help to make them effective as important as financial incentives (Darling-Hammond, 2010; Hargreaves & Fullan, 2011). Johnson and his colleagues (2012) conducted research in high-need schools yielding findings that made an important distinction in the working conditions that appear to matter: rather than the maintenance of the facilities or access to modern technology, most teachers' job satisfaction is related to the social conditions that include the school culture, leadership, and relationships among colleagues.

It should be noted, however, that these challenging dimensions of high-need schools can be incentives for some teachers to stay. Following the findings of Sonia Nieto (2003) about teachers' commitments to high-need schools—and their students—Vaidya (2014) investigated the "academic optimism" of teachers in these settings. Citing literature that conceptualizes that optimism as being a combination of self-efficacy, a sense of academic emphasis, and trust in students and parents, she proposed that this distinguishes outstanding teachers in high-need schools. More than teaching about effective practices, belief in oneself and one's students are central to innovation.

A GLOBAL PERSPECTIVE ON HIGH-NEED SCHOOLS AND TEACHERS

While comparisons with other countries have often highlighted their relative strengths, the ongoing crisis about schooling in the United States is echoed in the literature about education around the globe. UNESCO, for example, issued a report in 2014 that 250 million children around the world could not achieve basic literacy and mathematical skills, even with many of them in school. Barnett and Stevenson (2015) note that the world's population is increasingly urbanized, with half of its inhabitants in urban settings and attending urban schools, many of which are high-poverty.

Even in the face of initiatives such as Global Education First, the crisis has continued. Teachers are considered pivotal as the solution (Bangs & Frost, 2015; UNESCO, 2014) and the same strategies are highlighted as in the United States: more and better teachers in schools, improving teacher educators, training teachers to better design curriculum and use assessment for learning, placing teachers in the schools with the highest need, incentivizing their pay and career opportunities, and making teachers more accountable for data collected on student progress. As Bangs and Frost (2015) point out, this makes the teachers the "passive recipient" of reforms. It reflects which conclusions are reached with regard to improving education and an assumption that the teacher is the "object" of change. Moreover, it assumes that high-need schools can be remedied by placing the type of teachers in them as described above without consideration for the needs of those schools based on economic resources as well as the forms of capital we addressed earlier.

We need to be clear that the problems and solutions within education in different nations or localities cannot be collapsed into a single unidimensional global trend.

The works in this book are very specific to the United States' historical and current policies and practices. It might seem far-fetched to liken the contexts and challenges of improving high-need schools in this country to the literature on global reform. However, we do see three ways in which reforms are understood that are similar: (1) the stance that schools can be treated like a commodity rather than as a public service or, as Evers and Kneybar (2015) noted, "…not something of the public, but something delivered to the public…" (p. 3), where schools are seen as markets that can be reformed to produce better results—often through privatization; (2) a global trend toward gauging improvement in schools by performance on tests (highlighted earlier in this chapter) and the resulting reforms that change curriculum to support test performance rather than what might be discussed as of value and importance to the students' lives (e.g. Ravitch, 2010) and (3) the simultaneous view of teachers as the key factor of successful reform work with a view of the "death" of teachers as professionals (Biesta, 2013)—a tension that underlies much of this chapter.

The movement for reform of which the United States has been a part over the past decade is termed "GERM" (Global Education Reform Movement), based on the earlier Programme for International Student Assessment (PISA, 2000). PISA provided a more substantiated look at educational systems and reforms that were effective, allowing for what were considered to be meaningful comparisons among countries. Many of the reforms in the United States were in parallel with other countries such as England, Chile and Australia: school competition, choice, standards of teaching and learning, measures of accountability, and privatization of public education (Sahlberg, 2015). GERM was the result of research on reform conducted by Andy Hargreaves and associates that ultimately led to global trends toward competition among schools, supported school choice, privileged certain subjects (literacy, mathematics and science) over others (social studies, the arts, physical education), and led to teaching/learning standardization and accountability. Teachers were a central "factor" to these reforms.

The relationship between high-need school reform in the United States and globally has also involved the exporting of strategies and programs to other countries; an example is Teach for America, now in 30 other countries as Teach for All. This is an umbrella network of nonprofit organizations seeking to implement the Teach for America model with more local adaptations by recruiting academically strong college graduates to teach in high-need schools in those countries with the goal of diminishing nationally based achievement gaps between rich and poor students (Straubhaar & Friedrich, 2015). Striking in this worldwide growth is the highly contentious research about Teach for America's results in high-need schools in the United States (e.g. Darling-Hammond, 2009) as well as the investment in the spread of the program with the economic support of private organizations with shared values regarding school reform (Ball, 2012). Overall it is another indication of the global focus on teacher recruitment, retention, certification, as well as the role of teacher unions and measures of accountability (Straubhaar & Friedrich, 2015).

Internationally, research in high-need schools has emanated out of groups such as the International School Leadership Development Network (ISLDN), dominated by organizations from the United States and Britain (Barnett & Stevenson, 2015). Most relevant to our purposes here is that globally, high-need schools have high numbers of teachers teaching outside their licensure area with high absenteeism, turnover and low morale (e.g. Duke, 2012). These studies also depict teachers as resistant to change in their pedagogy with lower-performing students (Norberg, Arlestig, & Angelle, 2014). Globally, high-need schools with mandates for urgent change, such as turnaround schools, have school leaders in an authoritarian stance with teachers, challenging the status quo, compelling teachers to embrace change or leave. If the school's indicators of progress show improvement, teachers are seen more as collaborators and decision-makers, deciding direction for professional development, increasing their control over data collection, curriculum alignment and common planning time (Duke, 2012; Ylimaki et al., 2014).

This depiction of teachers' roles after a high-need school improves in measures of student performance raises the more central question of how teachers are viewed and treated in the school in efforts toward reform. In the United States and internationally, teachers are often seen as resistant to change and often as the reason why reforms are not working (Norberg, Arlestig, & Angelle, 2014). Teacher resistance is a topic addressed at length later in the chapter but the underlying assumption with this conceptualization is that reform is to be "managed" by school leaders who seek to change teachers' practices toward improvement and, when they fail to improve, removing them from their positions. Teachers are seen, management-wise, at the bottom of a pyramid, "…in a long line of authority in terms of their accountability for measurable outcomes…" (Sachs, 2003, p. 26) that goes beyond the school leadership to other levels of oversight and management.

As Evers and Kneyber (2015) point out, this vision of teaching as a managed profession with measurable outcomes that will help the economy of a nation is "untenable." The "good" education must involve more than high-stakes tests nationally or internationally. Treating teachers as knowledgeable professionals who make reasoned decisions and reflect on their educational purpose leads to a "flipped" system where "…replacing top-down accountability with bottom-up support for teachers…" (Evers & Kneyber, 2015, p. 5) can lead to meaningful reforms in high-need schools.

The teacher leader "movement" in the United States reflects this effort to support teachers as professional decision-makers in high-need schools with several related constructs, such as "distributed leadership" (e.g. Fickel, Bonisch, Henderson, & Price, 2015; Martin, Hoyos, & Rasmussen, 2015) and collaborative professional development based on social construction of the taught curriculum (Bogotch, Reyes-Guerra, & Freeland, 2016).

While we wholeheartedly and enthusiastically agree that school reform requires a "flipped" system and teacher-leader relationships that are more about collaborative

support and less about managed systems of accountability in high-need schools, we have found in our own work that a more contextualized, more "localized" understanding of teachers' beliefs is necessary to understand how reform can unfold. Put another way, how teacher beliefs are engaged and manifested during the efforts toward reform can illuminate the process of change. No other context is more frequent in reform work and related research than professional development of teachers, to which we now turn.

TEACHERS, REFORM AND PROFESSIONAL DEVELOPMENT

While reforms to improve student achievement involve a variety of strategies, the professional development of teachers to improve instruction is cited the most frequently (e.g., Stan, Stancovici, & Palos, 2013). In reviewing some of the more recent literature, we want to be mindful of not treating teachers or the professional development they undergo as "factors" in the sense of looking at "outcomes" from an input/output model of education as much of the research we summarize does (Biesta, 2015). For example, many researchers now point to increasing evidence that effective professional development has a positive impact on student achievement (Hattie & Yates, 2009; Wayne, Yoon, Zhu, Cronen, & Garet, 2008).

Yet there still is no consensus on the critical elements of professional development, despite fifteen years of scientifically based studies supported by NCLB (Learning Forward, 2011; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Arguing that states only offer broad guidelines for professional development programs (versus teacher certification programs) and that well-designed studies looking at the impact of professional development on student learning are rare, Blank (2013) believes that the better studies have certain common elements that we can identify: content focus, more time for professional learning (both frequency and duration), multiple activities/active learning methods, a focus on research-based pedagogy and learning, and collective participation by teachers. Most recently, the importance of classroom-based coaching has been pointed to as critical to effective professional development and change in teacher practices (Reeves & Allison, 2009; Spelman, Bell, Thomas, & Briody, 2016).

With the increasing diversity in high-need schools, strategies for teaching multicultural, ELL, and special-needs students will rely on targeted professional development (Darling-Hammond, Wei, & Johnson, 2009; Samson & Collins, 2012). Teachers in these schools have articulated need for support in behavior management, communication skills, preparing for working with diverse populations as well as developing confidence and self-efficacy as a professional (Varela & Maxwell, 2015).

An obvious question is, Why is there no uniform approach to including these elements in teachers' professional development? One of the reasons appears to be the lack of replicability of these elements for a particular school or district. Another—more profoundly related to our discussion here—is that the outcome that is desired from the professional development work must be fully understood and

agreed upon by teachers (Blank, 2013) and, we would argue, must be thought about critically, contextually, and as something of value. Put most simply, these common elements and desired outcomes must be understood within particular purposes that are based on needs, strengths, structures and roles within a given setting. As Biesta (2015) noted "…nothing ever 'works' in the abstract but always works in relation to a purpose or set of purposes" (p. 84).

Another reason is that teachers often view professional development as a waste of time. In a large-scale study conducted by the Bill and Melinda Gates Foundation (2014), most teachers viewed professional development as ineffective. This is particularly true when teachers express the belief that high-stakes tests are what is important to students' futures and devote their instructional time to preparing students for that reality (e.g. Fitzgerald, 2015). Teachers in the Gates survey identified particular areas of need, including use of technology/data, analysis of student data for pedagogy, and implementing the state-wide standards such as the Common Core. Teachers in high-need schools have noted the need to develop guidelines for working conditions and the school environment to enhance professional development while also giving educators more time to collaborate and plan (Hirsch, 2008).

The lack of consensus in the research appears to be due to the variety and range of professional development activities and myriad reform contexts in which it unfolds (Desimone, 2009). Gitlin and Magonis (1995) characterized school reform models as either "first-wave" or "second-wave." In "first-wave" reform, professional development for teachers takes a "top-down" approach, including the use of outside expertise in response to a particular topic drawn from a school's efforts to reform. "Second-wave" reform is a more collaborative model that involves teachers in the focus/design of professional development based on their identified needs. The latter model requires that teachers be even more deeply involved in the reform process itself, beginning with identification of strengths and challenges facing the school and resulting in a collegial appraisal and improvement of instruction. Darling-Hammond and McLaughlin (1995), for example, called for a collaborative model of professional development that supports dialogue among teachers and reflection on ways to best facilitate student progress.

In the literature, professional learning communities (DuFour, 2004), learning communities, and "critical friends" (Vescio, Ross, & Adams, 2008) have emerged as extensions of the second wave of reform. Collaborative approaches to professional development have been a part of the research on teaching within increasingly diverse classrooms (Bell & Thomas, 2008). In the context of research in turnaround schools previously discussed (Duke, 2012; Ylimaki et al., 2014), it may be that the second wave, or collaborative model, is not supported by school leadership until there has been an improvement in student performance on high-stakes tests. We would argue that most school reform efforts since Gitlin and Magonis' (1995) writing represent one of these two waves. There are important ways in which these two waves overlap, however. While researchers have proposed, for example, that teachers need to be even more deeply involved in the reform process, it is administrators who

typically initiate such learning communities. They may conflict with more informal teacher-initiated networks focused on curriculum and teaching strategies (e.g., the "knowledge communities" described by Craig, 2009).

In order to look at the informal networks and experience of teachers, we reviewed our earlier findings from a study we undertook of a professional learning community in a high-need district (Mungai, 2011). The district was not viewed as showing improvement in any of the indicators reported on by the governing education department. In part, it was to probe the teachers' experiences from the professional development they were offered within this professional learning community and what they believed was the impact on their practice as teachers. This is the answer one of them gave:

> It brings our colleagues together and helps us know new things, for lack of a better word, that are happening in the field that we can incorporate into our classrooms.
>
> Yes, when using the hands-on material, the children are better able to internalize the problem-solving skills.

We asked the teachers to identify the areas that they believed could be incorporated into their classrooms from the professional development we offered. The quotes below are representative of a focus on differentiating approaches based on individual student learning needs, whether involving technology or other supports.

> The workshop has given me new and creative ways to bring math and reading into my classroom. A lot of the games we play will help students in math and help them on the math state test. We are able to see how we can help the children get a concept, a concrete concept, for the things that we work on in class. It gives us different ideas on how to present it and that children can connect to and have fun at the same time.
>
> The workshops have helped me use differentiated instruction in my inclusion setting. The most helpful workshop I had was the one on computer usage. I was really computer illiterate. I am a brilliant, scholarly teacher, but I did not know how to use the computer. That was my first chance to operate and it was easier than I thought it would be. Thus far it has put me on the Web now with everybody else—I email people to death.
>
> The wide varieties of methods that are taught in the workshops remind you that there is not just one way to teach things. There are many different ways to impart knowledge and understanding to the students. The workshops have opened me up to thinking that way.
>
> [The workshop] focuses on the students' different learning styles. Some students are kinesthetic; some are visual, like me. I am a visual person. I can see things but I can't hear them as well. It helped me to think about the different

> needs of individual students as I try to present information in a multisensory fashion.
>
> The workshop has helped my motivation and my methodologies in the classroom. It has given me the opportunity to work with children whom I thought that I would never be able to work with. I could not understand why they could not sort out or process information. The workshops have given me insights on some things to do to bring about change strategies that could work. It [the workshops] has helped me to change the way I looked at my students in terms of expectations. It has also served as a recourse that I could utilize for change in terms of various testing methods. There are quite a few things that have helped me thus far. I am able to accept variety and diversity on a stronger level.
>
> I found the last workshop to be very informative and very helpful. I took some of the material and I read it and it gave me a new perspective on certain things as far as classroom management—why kids act the way they do, what they're looking for, what kind of attention they want.

When asked about the professional learning community itself two of the teachers responded this way:

> Yes, because we meet once a week, sometimes twice a week. We take notes. Even before we go into the meeting we write down what we want to discuss so we have a plan. If we don't resolve a problem, then we meet the next day or later on that week so it's not something that's left to the following week.
>
> Yes. I think it has brought people together. Not only people from this building but also from other schools in the district. Its also lets university professors get to see what teachers are doing, bring it back into their classrooms, and discuss it with their students who want to be teachers.

As a result of their responses, we wanted to ask the teachers about their beliefs about improving high-need schools, picked up in a subsequent study with teachers. Many of the responses involved radical changes that mirror the views of writers reviewed in this chapter, but one stood out as expressing the views of almost everyone:

> Change the infrastructure. The whole education system is set up for failure. It's not addressing the needs of the children right now.

HIGH-NEED REFORM, TEACHER RESISTANCE, AND TEACHER EMPOWERMENT

For many reasons, we focused our research efforts over the past several years (Thornburg & Mungai, 2011) on those high-need schools characterized as

"turnaround" schools before improvement or "first-wave" schools; or perhaps the dropout factories described earlier in the chapter. Even if these aren't completely overlapping lists of schools—and we should not reduce or oversimplify their unique histories and contexts—they are similar in being under urgent pressure to change, and for teachers, in particular, to change or leave. The result in the literature, as previously mentioned, is school leaders as well as researchers reporting that teachers are resistant. We will argue, from our work, that what is interpreted as "resistance" may be communication by teachers of important knowledge that would help to shape and guide reforms in high-need schools.

An increased focus on change in schools and teacher resistance to that change has accompanied intensified research on reform and instructional improvement (Bridwell-Mitchell, 2015). It may be that teacher resistance is proportionate to the extent of changes involved in a reform (Guskey, 2002). Bridwell-Mitchell (2015) categorized responses to reform in a variety of ways, ranging from the memories evoked from earlier reform efforts (Goodson, Moore, & Hargreaves, 2006) to emotions and stress caused by change (Schmidta & Datnowba, 2005). The composite picture from the resulting literature suggested that teacher resistance increases when the intended reforms affect classroom practices and when the teachers involved are more experienced.

The forms of teacher resistance to change are varied. McKenzie and Scheurich (2008), for example, investigated teacher resistance to reform in schools with diverse populations and found four forms: (1) "Externals are the cause of low achievement and achievement gaps," (2) "Accountability systems are destructive to my teaching," (3) "Suggesting change is critique," and (4) "We are not leaders." Those seeking reform also failed to recognize the impact of the workplace, the school's organization and culture, and prior constraints on teachers (Barnett & Stevenson, 2015; Collay, 2006), particularly when a policymaker has little knowledge of the reality of teachers' daily lives (Margolis & Nagel, 2006).

The literature about school reform portrays the forms of resistance as something to be overcome through effective leadership (Knight, 2009; Marks & Printy, 2003; Reilly, 2015) or decision-making (Murphy, 2005; Youngs & King, 2002). Increasingly, school administrators came to be seen as mediators of tensions between intended reforms and the resulting stress for teachers (Brown & Nagel, 2004; Senge et al., 2000). However, as Knight (2009) suggested, administrators attributed unsuccessful efforts to improve student learning to teachers' failure to change. Next to time management, teachers cited the lack of administrative support as key to preventing reform (Barnett & Stevenson, 2015; Southeast Center for Teaching Quality, 2005). Teachers tended to perceive reform as a reaction to demands by external agencies; administrators, in turn, considered teachers as "semi-professionals" and the recipients of reform policies rather than the change-makers themselves (Collay, 2006).

Part of the dilemma for teachers may be the discrepancies school personnel bring to a definition of "reform." Administrators may frame reforms as "school-centered"

while teachers view them as "child-centered" (Barnett & Stevenson, 2015). There is little consideration of the cultural and moral values that underlie this stance in the reform literature, nor does the literature tend to address teachers' perceived identities and roles vis-à-vis their profession. In our previous research (Thornburg & Mungai, 2011), we sought to explore teachers' collective perceptions about school improvement in general and their experience of professional development in particular. We queried whether the teachers agreed with both the approach and the intent of professional development.

We framed our study on the work of Gitlin and Magonis (1995). The authors proposed that most research has obscured the political wisdom of those teachers who resist reform. By illuminating their good sense, we hoped to help these schools "avoid the push-pull cycle where outsiders push for reform and teachers resist, leaving schools fundamentally unchanged" (p. 377). We additionally followed the work of Silin and Schwartz (2003), who saw teacher resistance as a form of communication as to what needs to be articulated and studied in a school reform effort. In this sense, we viewed resistance as a study of teacher empowerment, as it was the teachers themselves who were the experts in guiding the reform process. We intended, as the authors put it, to stay "close to the realities of teachers' work lives" (p. 1598).

Our earlier work reported on an investigation of how teachers experience and understand reform efforts in their schools within a professional-development framework that attempted to support teachers moving into a professional learning community. We sought to identify the elements and dynamics that impede student achievement in school improvement and reform initiatives. Gaining an understanding of school reform and the documented lack of school improvement required consideration of a complex set of beliefs and multiple perspectives going well beyond simplified notions of resistance.

Time with reform. The most common response to our questions about school reform in the previous study involved concern about time commitments on two levels: the immediate sense that the reform would take teachers away from instruction or their students and a more general, longer-range concern about changes in role and authority as a result of the reform. With regard to the first concern, some teachers noted that professional-development sessions were a factor. One teacher commented: "I guess they are necessary, but when the kids need so much, how do I justify being away from them?" While this type of statement represented teachers' concern for the students themselves, many saw the time involved as being in conflict with accountability for their students' learning and achievement. One asked: "How can I do this and keep teaching three preps, two of which lead to required state tests?"

Other teachers noted that the reforms required taking on new roles. One teacher said, "I was more of a mentor or friend to the students in our classes by administrators and consultants." This same teacher asked: "How do you do that and also teach a

highly rigorous curriculum?" The teachers remarked that the reforms required them to be more decision-makers, even if collaborating with others, and to take on more administrative functions.

Leader consistency. Teachers in this study expressed concerns about time, accompanied by perceptions of little support or consistency on the part of school and/or district leadership in the reform process. They stated that administrators showed a lack of leadership in response to the challenges teachers faced as student demographics shifted racially, ethnically, and linguistically. At the district level, a number of teachers expressed a belief that the turnover in the central office made continuity in policy and decision-making impossible. One teacher commented that expectations were constantly changing as a result, lowering the morale of a "bright and educated staff." He offered an example of the decision to build a new middle school that required the current superintendent to "go back three superintendents to see who OK'd the stuff." Another added: "They go off whatever was left in front of them." Her suggestion was that district leaders merely react to their predecessors' policies and decisions. At the school level, the concerns were more about implementation. Teachers noted poor follow-through on disciplinary matters with students, which they claimed impeded instruction, and administrators' failure to recognize teachers' need for greater support. One teacher observed that the lack of follow-through on a range of policies prompted students to "think that discipline is a joke with the cell phone use, talking back, all of it."

Accountability versus needs. Teachers also articulated a view that accountability mandates drove school-reform efforts, and often in opposition to the students' needs. These narratives indicated that while reforms might be of benefit, the mandates of state and federal reporting can lead to a contradiction in the agendas for the school. Many described a need to focus disproportionately on content and testing requirements. One teacher, for example, cited the required skills on the "five-paragraph essay" on the state examination in English Language Arts, hoping that the students understood the stakes involved, including graduation.

Other teachers noted that the accountability emphasis within school-reform initiatives was in direct contradiction to the reform's intent to provide a "safety net" for students who had emotional, social, academic needs. One teacher asserted, "I don't have the luxury of stopping to worry about their home lives or their self-esteem." Another responded: "I have to largely ignore what goes on for the students—whatever that might be—and just concentrate on the curriculum." Some addressed the contradiction by questioning the priorities of the school. One suggested, for example, that teacher accountability should reflect caring rather than student achievement. She proposed that it was not simply subject matter that should be taught, but also "life ways."

Teach diverse students. Many teachers in the study made reference to the limited capacity to work with increasingly diverse students, many of whom had linguistic and cultural backgrounds with which teachers were relatively unfamiliar. Rather than focusing on the lack of knowledge about diverse populations, these narratives included statements about students from different backgrounds lacking interest, background knowledge, or a willingness to follow the norms of behavior. For example, one teacher stated, "They are rude, often indifferent, and seem to be more interested in the noise outside in the hallway than in the class. I blame the parents, honestly, for allowing them to be so poorly educated about school and expectations."

The majority of teachers, however, were self-reflective about the need for greater knowledge. A teacher admitted not knowing other languages and not having the resources to help her. She added, "I don't feel like I can establish a relationship with them because we come from different backgrounds." Some of the narratives reflected a view that students' or their families' immigration experiences should be drawn on in their work, but they noted contrasts to the "new immigrants." Others commented on having had courses about cultural diversity in their education, but that the knowledge they gained failed to prepare them to work effectively with diverse populations. One teacher, for example, suggested that the students have a different perspective from her own. She added, "I could use another session with someone on broadening my cultural horizons."

No student choice. While the teachers acknowledged the diversity within the student population, many noted a lack of diversity in school offerings for students. Furthermore, they stated that the school reform efforts did not address this factor. The reforms typically focused on college preparation and failed to include what was "practical" in working with many of the students, reflecting a strong belief that students need greater choice in curriculum and programming aside from college preparation. One teacher argued that technology courses should go beyond computers to include job skills such as plumbing or electrician work. Another proposed the need for career centers to reflect children's interests, such as careers in the automotive industry. He added: "This is where these children's interests would be. These children could get their doctorates in automotive engineering."

While all of the teachers agreed that college preparation should be the goal, some saw a failure to recognize skills and knowledge within academic curriculum that might be important for life outside of college, such as time management and self-advocacy. Some teachers asserted that integration of these skills into students' academic coursework would encourage students to remain in school. For example, one teacher stated: "The students think 'what's the use of me being here?' This leads to the kids acting out. If you had something that addressed some of those real-life issues—training on how to survive, life skills—then you might get a little more participation."

Peer communication. Teachers also described a need for more communication and collaboration in order to move forward with reforms. One teacher said, "That's the only way we're going to be able to work as a whole unit successfully." Teachers sought greater opportunities to talk directly to their peers about their ideas and challenges. Without such opportunities, the teachers expressed concern that a sense of isolation could affect the reforms' outcomes. One proposed peer workshops, for example, to communicate different ideas. She noted that there should be "valid communication between staff, administration, the community, and the students." She added, "Without that, nobody is ever going to be on the same page." Others expressed a need for better communication among colleagues beyond the formal meetings guiding the reform efforts. One teacher argued, "As long as some are working this way and some are working that way, it's not going to be successful." This statement was representative of the concern raised by a number of teachers that there might not be sustained opportunities to reach consensus about policies and practices in the school.

Reforms tried before. In addition to identifying reform efforts that faltered without sustained communication, teachers commented about the outcomes of former initiatives. In this study they noted that the reforms being instituted had already been attempted, failed, or been abandoned. As a result, the narratives of these teachers included statements that weighed the benefits and costs of reform. Such comments included a perception that the efforts differed little from current school curriculum or pedagogical practices. Such "fads" amounted to little substantive change in some teachers' eyes. Two teachers cited the use of recycled textbooks containing the same or similar information as those abandoned. One asked: "Who is making money here?" For some teachers, the appropriate response to this perception of recycled reforms, programs, and curriculum was to ignore current initiatives and remain consistent with the students: "It's not about the children; it's about business. But we as teachers shut our doors and teach because we love the children."

Reforms from outside sources. The final theme noted—and related to teachers' comments about recycled reforms—was the view that outside forces such as politics or funding drove reform efforts. One teacher characterized the forces as "higher than the superintendent" and "political." In his view, "big business" ran the reforms. The result was that vital issues were ignored: "They're not thinking of the children; they're not thinking of the population; that's why things are falling apart." He echoed a sentiment shared by many: "It's not just here; it's all over. The education system is set up for failure." According to these narratives, the outcome of reform was less important to those outside the community than making profits from reform activities. Several teachers proposed that reform efforts would be more successful if the school and local community initiated and sustained them.

The results of this study highlighted for us the ways in which the teachers experienced and interpreted their daily work in the context of reform initiatives,

thereby creating a body of knowledge that would result in empowering teachers' voices rather than dismissing what they had to say as resistance to be overcome. The study provided a clear roadmap of how to proceed with the schools in order to support change at multiple levels. In some respects, the study offered validation of the findings of several researchers over the years about the main sources of teacher resistance to reform: notably, the concerns about professional development taking them away from classroom instruction and the lack of administrative support/consistency (Barnett & Stevenson, 2015; Gitlin & Magonis, 1995; Margolis & Nagel, 2006). What is striking about these concerns, however, is the additional dimensions they encompassed, for example, the time involved in taking on other roles (decision-maker, advisor to students), the lack of administrative support, and the failure to follow through on policies. These findings speak to the current realities of high-needs schools in their emphasis on shared decision-making and emotional support (such as in student advisories), and the high rate of turnover of administrators. They also substantiate the research of Barnett and Stevenson (2015), Collay (2006) and others who have emphasized the changes in identity and role that teachers often experience with reform initiatives.

The tension between accountability and meeting the needs of students has surfaced in recent years as a result of No Child Left Behind and high-stakes testing, noted as a theme of resistance by McKenzie and Scheurich (2008). While researchers have argued that creating content that is aligned with standards and meeting the learning needs of students can be done simultaneously, this does not appear to be the perception of the group of teachers who agreed to be a part of the reform process. Our findings have highlighted the achievement gap, which Duke (2012), McKenzie and Scheurich (2008), and others have blamed on forces outside the school or biases based on race and class (Barnett & Stevenson, 2015).

In our study, the teachers were much more likely to attribute difficulties in teaching diverse groups of students to their own lack of expertise. The teachers described teaching as they were taught, particularly in the face of uncertainty with new students and new needs. Because the current wave of immigration of students from other language and cultural backgrounds appeared to many teachers to be a part of a longer history of immigration to the United States, they drew on their own heritages and knowledge of their own families' histories. While this study did not address the issue of a college-preparatory curriculum for all students as part of a reform effort, it was clear that many of the teachers believed there should be more options for students who might pursue vocational or technical careers. An underlying assumption was that such programmatic options were not possible with the time and energy claimed by the reform efforts. In our experience, administrators often claim that this dilemma is an indication of teachers' lowered expectations for their students. The narratives suggested to us, however, that student choice did not necessarily mean that teachers expected less of their students.

The teachers believed that the reform initiatives in all seven schools were similar to previous efforts in both curriculum and programming. Whether this approach

was a function of communication difficulties, an inability to connect the current reform with previous changes within the team and school, or the result of another factor is unclear from this research. If teachers failed to see how reform built on or diverged from past policies and practices, it is easy to see why it would be viewed as resistance. In our view, it is an indication of the need to revisit the vision, goals, and outcomes of the reform work with school leaders and teachers to determine what might be amiss. We would surmise that the last theme—that reform efforts are coming from the "outside"—represents the same difficulties in communicating or connecting the purposes of the reform.

We also acknowledge, however, that these issues of larger political and economic forces have a very real basis. The influence of larger forces figures prominently in teachers' perceptions of their work conditions, which we see as part of the organizational structure and culture of the school (Youngs & King, 2002). We believe our research has highlighted the ways in which teachers might attribute those work conditions to forces that are beyond their immediate control. We also speculated about how current reform evoked teachers' negative associations to previously tried change (Johnson & Fargo, 2010). Such an interpretation of the theme certainly matches our experiences with administrators who tended to see their more senior staff as entrenched and unwilling to try new roles and strategies.

Similarly, experienced teachers were far more inclined to bring up a lack of consistency by school leadership as a result of high turnover; they also viewed outside forces as influential in the reform initiative. Ten years later, we would agree with Hargreaves' 2006 conclusions that there have been insufficient studies of reform that are longitudinal in scope and include, for example, when and how teachers were educated prior to being involved in reform and professional-development efforts.

Jean Anyon (1981) concluded that there were clear connections between curriculum and pedagogy used in United States public schools and the social-economic class of the community being served. A decade later, Jeannie Oakes (e.g. 1992) showed the complex connections among social-economic class and race in placement into an ability level or "track" in schools—and that the lower tracks with lower income were more frequently students of color who were taught more vocational and drill-skill lessons than in the upper tracks with a college-preparatory work that was more discussion- and student-inquiry based. The reforms that have come from those inequities are important ones. Yet we still see the connections between the lowest-performing schools and the poorest neighborhoods in the United States and around the globe (Barnett & Stevenson, 2015). We would surmise that a different type of tracking has occurred in high-need schools where teachers feel the greatest pressure to get better results on higher-stakes tests as measures of student performance. We also believe that these are the schools where the need for "flipping the system" is the greatest, allowing teachers to create programs and curricula that are strongly supported by leaders and a professional-development model that emerges out of teachers' shared professionalism and confidence that their students would succeed on measures that matter.

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