

Moving Beyond the Pass-Fail System in K–12 Classrooms

By Matthew Lynch

Dedication

This book is dedicated to the teachers, administrators, parents, citizens, and politicians who have been fighting for genuine school reform in the United States for decades. Thank you for caring about our children. This book is also dedicated to the children who have not been properly educated by the U.S. education system; these children are the collateral damage that should spur us to create lasting reform.

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Preface

The 2001 No Child Left Behind (NCLB) Act sparked the initial idea for this book. That single piece of legislation made an already troubled educational environment mostly unworkable. Of course, policies aimed at holding teachers and school systems accountable, but they were no better after NCLB than they had been before it. Rooted in a pass-fail mentality and high-stakes testing, NCLB did nothing to counter the practices of social promotion and retention that plagued so many students. When NCLB's replacement, ESSA (Every Student Succeeds Act), was signed by President Obama the end of December 2015, it effectively swept away NCLB. Although ESSA replaced some of the more punitive aspects of NCLB with more effective policies, it was far from perfect, and continued the pass-fail philosophies of its predecessor.

For someone devoted to promoting quality education, I found the prospect of students being punished for their academic struggles especially troubling over the years. And I have always regarded retention and social promotion as forms of punishment inherent in a pass-fail K–12 school system. Research overwhelmingly shows the absurdity of retention and social promotion as education policies. Students experience staggering levels of anxiety because of the policies. Numerous studies, many of them cited in this book, put the degree of anxiety associated with social promotion and retention at the same level as devastating life experiences.

Setting these issues aside, though, there is also overwhelming evidence of significant social and economic costs because students who experience retention or social promotion tend to be at higher risk of social and economic problems. Then, of course, there is a matter of education itself: Are students learning?

Professionally and personally, I place a tremendous value on education. I see it as fundamental to individual success. A love of learning should be instilled in every student; this should be among the foremost responsibilities of the public education system. After all, the school environment should first and foremost be an environment of learning. But when students feel pressured to perform for tests and are being taught to perform on tests, the potential for developing a love of learning—the potential, even, to *get* an education—is so seriously undermined that it is almost unrecognizable.

This book will present a comprehensive set of reforms to address some of the major challenges in our education system—reforms that will not only resolve the problems of retention and social promotion but also enhance the quality of education and the opportunities for learning afforded to America’s public education students. Be warned, however: What I lay out may ruffle some feathers because it goes against the grain of traditional philosophy and accepted classroom structure.

In this book, I call not simply for an end to retention and social promotion, but for a radical and comprehensive reorganization of American’s public schools. My strategies are drastic, but they are reasoned and well-supported, calling for a refocus on skills and various types of knowledge. (As we shall note, many of the Founding Fathers championed the educational policies I offer here.)

In this country, we have debated for some time now what exactly we should be teaching our children and how exactly we should be teaching them. The *what* and the *how* of education will probably continue to be hot topics for many years to come. But what we are missing and what so many of us are overlooking is the growing importance of knowledge and innovation in our global economy.

People are outraged that America brings many foreign scientists, academics, and the like into the country to share ideas and offer their skills. No doubt, we will continue to hear complaints about outsourcing operations overseas—U.S. companies calling on the resources of other countries to achieve their goals in business. The truth, though, is that America's workforce lacks the necessary knowledge and ability to innovate effectively. And the problem is only going to get worse.

A significant context for this book, in fact, and for any effort to revive and redesign the education system, relates to the shift in the way we do business—the growing emphasis on knowledge and innovation, and the general shift to a knowledge economy. In this process, the United States is already lagging well behind other developed nations with which it competes most directly for economic power. Although education is not the only theater in this war for knowledge supremacy, it is one of the most significant and one in which, with a little effort, America can quite easily reassert itself. That reassertion, though, will involve rekindling the nation's mind to recognize that the object of education is not to teach to tests or to make students fit into neat little boxes. Once we recognize this, we will be well on our way to reviving the American education system and reviving a national love and appreciation of learning.

Introduction

The call to reform the American education system can be heard loud and clear in many quarters of our nation. Teachers, parents, students, administrators, and legislators know that the system is flawed and that it leaves too many students unprepared to participate in the high-tech, knowledge-based economy of the 21st century.

While there is widespread agreement on the need for reform, there is less consensus on what reform should look like. This book aims to show that much of the education system's failure to serve students well stems from the system's core structure—a structure of age-grade classes that relies on standardized testing to measure student learning and teaching success. This traditional model fails to meet the needs of many students—especially students who are chronically at-risk. Too many students fall victim to either social promotion or retention because the system is unable to meet their academic and social needs in a meaningful way.

It is time to ask probing questions of the system: Why aren't students learning what they need to succeed as they move through grades K–12? If students lack essential academic skills and neither social promotion or retention is effective, is there a “third way” beyond pass-fail? Why are we stuck in an age-grade, pass-fail model that clearly does not work for many students? To address these questions, I will look not only at the immediate problems of retention and social promotion but also the historical and cultural contexts of current education policy. The goal is to provide a comprehensive view of the problem while getting to specifics where necessary. This

book does not take an insider's view; rather, it approaches education in America from the outside, taking a broad and deep view.

Chapter 1 explores the basis of public education in the United States—how education was historically undertaken and how public education emerged. This chapter begins by recalling the genesis of public education in the United States, its original objectives, and how it evolved into the age-grade structure we have today. We will briefly note key efforts to reform the system since its inception.

Chapter 2 analyzes what I call the “true” costs of pass-fail strategies and examines why these policies inevitably leave many students as casualties of retention and social promotion. In this chapter, we will take a step back and look closer at how pass-fail policies impact the academic career of a child who is retained or promoted without having achieved the required graded level of knowledge and skill. As far as possible, I aim to show the total cost of pass-fail policies for all the stakeholders in public school education, including students who are retained or socially promoted as well as students who pass to the next grade. The goal is to demonstrate why the pass-fail model can be said to be ruining our public education system and why these policies are damaging our society.

Chapter 3 investigates specific concepts for rethinking school design and ending the age-graded, pass-fail structure we have today. In this chapter, I present research about how students learn best and then explore options for designing schools to extend contact between teachers and students. This chapter outlines some of the most viable strategies for redesigning America's public school system. Significantly, all these designs reflect the belief that graded schooling does not support the highest levels of educational achievement.

Chapter 4 advocates moving to mixed-age classrooms as a way of grouping children across an age range of two years or more instead of continuing our current single-age grouping pattern. Multiage classrooms use the mixture of ages to increase educational potential and are a key part of the redesigned schools I propose. To create these classrooms, schools will need to change not only the structure of the curriculum and application models but also the management of classrooms and the use of teaching strategies.

Chapter 5 examines the pivotal role teachers play in students' academic and social achievement and what should be done to help teachers make the most of their skills and time. My basic premise is that well-qualified teachers are an effective deterrent to the major shortcomings of a pass-fail system, especially the use of social promotion and retention. In this chapter, I take a hard look at teacher hiring standards, qualifications, and competencies needed for the proposed student-centered K–12 classrooms. The most important issue is the relationship between teacher expertise and student success, and in this chapter, I get down to practicalities: How does one go about developing qualified and competent teachers? Currently, most states use high-stakes testing or a narrow set of assessment measures to determine whether a student should be retained or promoted.

Chapter 6 considers the importance of using multiple sources of information about a student to determine his or her readiness for the next grade. To some extent, public schools already make use of multiple assessment measures. For instance, multiple assessment measures are standard for students with Individualized Education Plans (IEPs). In this chapter, we discover that the real key to effectively assessing students is not so much the use of multiple measures as it is the actual selection of those measures and defining how they should be administered and interpreted.

Chapter 7 considers intervention strategies that identify children who need extra help early and that provide a means for students to receive support. There is growing evidence that such programs can prevent more serious learning problems from occurring in later grades. This chapter highlights the key elements of intervention—*diagnostic strategies* and *intervention*—and outlines how successful intervention can help eliminate the need for retention and social promotion.

Chapter 8 concludes by clarifying how key reforms can work together harmoniously in a redesigned education system that goes beyond pass-fail and the scourge of retention/social promotion. In this new paradigm, teachers and administrators must be fully committed to the new strategies and be held accountable for how they are put in place. Ironically, one of the greatest challenges of writing this book was this final phase of not only summarizing the theories and ideas discussed in earlier chapters but outlining how the various steps to change could be revised and implemented for the long term.

Anyone can review the statistics from the wealth of research on education issues and conclude that one or more alternative strategies might resolve the current deficit in the American education system. But a simple change to educational standards will not resolve the problem. Ending standardized testing altogether, although it would be a tremendous step in the right direction, is not enough to bring about the degree of change needed. New hiring and training policies for teachers will not do it either. And, although it would get us moving in the right direction, simply ending retention and social promotion is not enough.

With the right focus on action and thoughtful understanding of what education can do and what types of changes can be implemented over time, we can achieve meaningful reform. The strategies in this book are deliberately designed to be workable in the educational system. If the

goal is to improve educational opportunities for America's children, any meaningful reform must address the issue of timing. I believe that the reform timetable must be condensed as much as possible to minimize disruption to students, and in this chapter, I talk through some of the challenges and the essential steps in a successful transition plan.

My firm belief, as I demonstrate in this book, is that quality education has enormous potential to help this country develop into an even greater nation, by building on past successes and learning from our past and current shortfalls. Increasingly, new and evolving technology means that long-term success is dependent on our graduates' ability to innovate, think creatively, and apply knowledge in a dynamic work environment. On a national scale, the number of individuals who have these abilities makes a difference in how our nation functions in the global economy. It's no coincidence that nations using many of the educational strategies outlined in this book are among the global leaders in innovation and creativity.

A combination of strong leadership, quality teaching, sound standards, and multiage classrooms will get us moving in the right direction—ending retention and social promotion and opening the way for every student to truly enjoy a free and appropriate education as our Founding Fathers intended.

I trust that *Moving Beyond the Pass-Fail System in K–12 Classrooms* will provide some much-needed insight and raise critical questions that are often overlooked or downplayed in current education policy discussions.

Chapter 1: Our Pass-Fail Culture—How Did We Get Here?

A week before the end of eighth grade, Ted Hamm's mother was informed that her son was going to be held back. She didn't have any inkling that this was a possibility; according to her, Ted had always performed well in the classroom. "I mean he was always an A and B student," she commented. "I knew his reading level was low, but not what [the teacher] claimed it was" (Williams, 2007, p. 3). However, low standardized testing scores and low grades in the key areas of reading and math combined kept Ted from advancing.

According to Ms. Hamm, the effect on Ted was immediate. "Before being retained, he socialized with his friends like normal," she said. "After Ted was retained, he didn't want to go to school. He was very withdrawn." The problems grew more serious. Ted became depressed and isolated. He stopped hanging out with other students at school and stopped inviting friends to his house. Eventually, Ms. Hamm had him transferred to another school. "I was hurt," she said. "I felt like he would feel that he failed. Failed, you know, like he was not smart enough and like he would be laughed at." (Williams, 2007, p. 3)

Ms. Hamm's intervention and active involvement in her son's education were eventually successful. Ted Hamm thrived in the new school and managed to get on the honor roll (Williams, 2007). Ted Hamm was lucky. His mother was involved in his education and willing to intervene to try to bolster his chances of success.

Without a doubt, public education is a cornerstone of the American democracy, and we owe much of our past success to the push to make education widely available. Nevertheless, we continue to wrestle with the challenges of providing free and equitable K–12 education to all Americans—how to deliver on the promise of education without losing our most vulnerable

students. This chapter begins at the beginning—looking first at the role of education in America’s early years and then following its evolution from ungraded schools to today’s age-grade prototype. Along the way, we will trace some of the efforts to reform the system and lay the groundwork for the reform strategies outlined in the rest of this book.

What Are the Main Pitfalls of the U.S. Education System?

The existing education system almost always emerges as the biggest single obstacle to educational reform, which is both ironic and frustrating. What most educators come back to is the question of whether a one-size-fits-all graded approach can ever be suitable for all students. The issue is complicated and has support on both sides of the aisle, but recent research has exposed the problems of this “one-size-fits-all” approach (Marsh, Gershwin, Kirby, & Xia, 2009).

At various points in the history of American public education, different facets of the “graded” system have been accentuated. Some would argue that the focus of the public education system has always been more on social issues and goals than on the students (Urban & Wagoner, 2009). Others claim that students from disadvantaged backgrounds tend not to receive adequate support in school and thus get caught up in the retention versus social promotion problem more easily and thoroughly than students who come from more privileged backgrounds.

Social parameters such as family income, ethnic background, and even family structure appear to have a sizable impact on the risk or likelihood of retention or social promotion in schools. It’s relatively easy to show that students from low-income households and students with other disadvantaged backgrounds tend to be the ones most dramatically impacted by grade retention or social promotion. Not surprisingly, they also tend to be the students for whom the question “to retain or not retain?” is particularly relevant.

Certain critics argue that the main pitfalls evolved from the beginnings of education in America. That is, they observe that the American education system was founded in an age when education was still considered to be relatively restricted, with only academically talented individuals having the chance to move much beyond the basic levels (Urban & Wagoner, 2009; Tyack & Cuban, 1995). Are the original goals of the American public education system still relevant to modern needs? Many educators and other stakeholders question what the goals of public education ought to be today. What type of education do our children need now, and how should the public education system go about achieving it?

But before we embark on an assessment of the American education system and before we consider the problems of retention and social promotion specifically, we need to be clear about where we are coming from. We must look at the basis of public education in the United States: how education was historically undertaken and how public education emerged as a result. We must also consider how public education became enshrined in the United States, what the objectives of public education were, how the public education system in the United States was developed, and what efforts have been made to reform the system since its inception.

The Genesis of the American Educational System

Education in Ancient Greece and Rome

The push to educate the general public has its roots in two hallowed centers of learning in the ancient world: Plato's Academy and Aristotle's Lyceum in Greece. The era of Plato and Aristotle is a period of great academic advancement in areas as diverse as mathematics, astronomy, politics, poetry, and the arts.

Like the Greeks, the Romans heavily influenced western civilization, and we often credit them with its original foundation. Unlike the Athenians, the Romans based education on a practical, concrete, and rather an unimaginative approach to life. The ancient Romans threw their energy into government, politics, and legal matters and avoided educational entanglement with the arts and philosophy. They also valued a common language, dress, manner, religion, political system, legal institution, and literary corpus. They adopted some Greek learning and educational practices but organized and systematized them to meet the needs of the Roman state (Cubberley, 1902).

Evolution of Educational Philosophy from 15th- and 16th-Century Europe

After the decline of the Roman Empire, the Catholic Church rose to educational prominence. The church was the first major institution of education and learning for most of Europe; its educational system was, of course, deeply tied to its religious roots. The Renaissance and the European Reformation conflicts in the 15th and 16th centuries led to the development of a more orderly approach to the educational process.

The modern elementary vernacular school is a direct product of the Protestant Reformation, which emphasized education largely for its own sake. Most of the earliest education systems had worked to educate the individual so that he (education remained an entirely male institution) could better work in the service of the State or the Church. As Protestantism established itself, the goal of education for the masses changed again, though. Suddenly education was necessary for a person's salvation (Cubberley, 1902). With education at least somewhat removed from the direct control of the church in many places, the modern concept of education gradually emerged and allowed school systems to serve a variety of public functions.

Education finally became a civil affair rather than an ecclesiastical one, and thus schools became places that promoted the common welfare of the nation-state rather than just the individual with a focus on his salvation. With industrialization as a key influence, the middle of the 19th century saw the realization of new educational goals and the promotion of education as a birthright of every child (Cubberly, 1902). During the 1850s, there emerged a program for establishing parameters and standards in elementary education and for expanding the system of learning to support secondary advancement. The eventual plan was to prepare all children for a tertiary level of education and advancement into higher education (Cubberly, 1902).

U.S. Public Education—the Formative Years

From an educational standpoint, the United States must be viewed as an essentially European-derived enterprise. From the outset, the major goals of America's public education system have been relatively consistent: to produce satisfying outcomes in eight broad categories (Urban & Wagoner, 2009):

1. Basic academic knowledge and skills, including reading, writing, math, and knowledge of science and history.
2. Critical thinking and problem-solving abilities, including the ability to analyze information and apply knowledge to new situations.
3. Appreciation of the arts and literature, including participation in and appreciation of musical, visual, and performing arts as well as cultivation of a love of literature.
4. Preparation for skilled employment, including appropriate workplace qualifications.
5. Social skills and a strong work ethic, including communication skills, a feeling of personal responsibility, and the ability to work with and interact with others from varied backgrounds.

6. Citizenship and community responsibility, including public ethics and knowledge of how government works.
7. Physical health, including lifelong exercise and healthy eating habits.
8. Emotional health, including self-confidence and respect for self and others.

In 1749, Benjamin Franklin pioneered American thinking on education by proposing that Pennsylvania establish a public academy of education for adolescents (Rothstein, Jacobsen, & Wilder, 2008). Franklin suggested that such an institution should emphasize physical fitness as well as academics. A man of many ideas and insights, Franklin also spoke up on the importance of studying history, because it taught students temperance, order, frugality, and perseverance. As students delved into history, Franklin suggested, “questions of right and wrong, justice and injustice, will naturally arise.” He also proposed that students should read newspapers and debate current issues as a means of developing an understanding of logic and reasoning. He thought that schools should require competence in reading, arithmetic, and science and that they should be accountable for teaching these skills.

However, as Richard Rothstein emphasizes, Franklin and his contemporaries did not envision assessments of the quality of educational institutions based on how well students acquired the skills and knowledge. The skills Franklin thought children should learn were themselves only a means to an end (Rothstein et al., 2008). Thomas Jefferson concurred with Franklin’s view when he called for public schools to be created to build the capacity for ordinary citizens to make intelligent democratic choices. The Federalists, led by Alexander Hamilton, held yet a slightly different view on education, suggesting that universal education would assist

in socializing citizens, helping them to accept the values of their leaders while preparing young people for “law-abiding” adulthood (Rothstein et al., 2008).

Falling somewhere between the two perspectives was George Washington, who contended in his first State of the Union address that Congress should promote schools that taught citizens how “to value their rights,” and ultimately how to protect themselves against anyone, including any government, that would infringe upon those rights. He said that the new nation needed “to distinguish between oppression and the necessary exercise of lawful authority” and to “discriminate the spirit of liberty from that of licentiousness ... with an inviolable respect to the law.” (George Washington as cited in Peters & Woolley, n.d., para. 12).

Washington also urged the government to establish public schools because “virtue or morality is a necessary spring of popular government.” He recognized that public opinion makes policy in a democracy and, as a result, “it is essential that public opinion should be enlightened” (Washington, n.d.). In none of these instances, though, does it appear that rigid standards for reading, writing, and arithmetic were to be the foundation for accountability. Schools were expected to go well beyond such basic provisions and, in effect, become responsible for developing productive, well-informed, and engaged citizens.

Another of Washington’s goals for public education was to bring together young people from various backgrounds within a public university system, with an emphasis on developing a common identity and acceptance of diversity. He hoped that young people could unite as he put it:

when friendships are formed & habits established that will stick by one, the youth, our young men from different parts of the United States would be assembled together & would by degrees discover that there was not just cause for jealousies & prejudices which

one part of the Union had imbibed against another part. (George Washington as cited in Higginbotham, 2001, p. 239)

More than 70 years after Franklin's comments on the components of an optimal public education, Jefferson clarified and elaborated on those components. Jefferson believed a proper education should give all citizens the information they needed to undertake transactions at their businesses (Spring, 1994). He believed education should enable citizens to calculate for themselves and express their ideas, contracts, and accounts in writing; to improve, by reading, their morals and faculties and to understand their duties to their neighbors and country; and to discharge with competence the functions confided to them by either.

Jefferson charged, too, that the public education system should help all citizens to know their rights and to exercise within the realms of order and justice about those they retained; to choose with discretion the fiduciary of those they delegated; and to notice their conduct with diligence, candor, and judgment (Spring, 1994). In other words, Jefferson insisted that the goal of public education was for citizens to respond with informed intelligence to any situation that might arise in their relationships, businesses, or other facets of their lives.

The 1780 Massachusetts Constitution, drafted by John Adams, another of the Founding Fathers, laid out the first legal requirement for public education. This State constitution noted that the duty of the legislative and executive branches would be to maintain public schools. The document declared:

Wisdom and knowledge as well as virtue, diffused generally among the body of the people, [is] necessary for the preservation of their rights and liberties. In addition to teaching academic subjects, public schools should also be required to include lessons on the principles of humanity and general benevolence, public and private charity, industry

and frugality, honesty and punctuality, sincerity, good humor, and all social affections, and generous sentiments. (Urban & Wagoner, 2009)

There is clear evidence that the U.S. government took to heart much of what the Founding Fathers had to say on this topic. The 1787 Northwest Ordinance provided funds to new states, allowing them to establish public education systems, declaring that “religion, morality, and knowledge, being necessary for good government and the happiness of mankind, schools and the means of education shall forever be encouraged” (Urban & Wagoner).

Even in the earliest days of America, the notion that public education was a necessity was accepted. Of course, at that time the nation lacked the infrastructure to provide effective access to public education. Still, many came forward in support of a public education system that embraced most, if not all, of the ideas and principles that the Founding Fathers had set forth.

There were supporters of equal education for all, but there was still considerable controversy about access to education. Questions arose about whether poor children were being restricted to instruction in basic skills while children from middle-class families received broad education meant to maintain and improve their quality of life. In this period of transition from theoretical public education to an implemented system that worked for all citizens, Horace Mann emerged as one of the principal champions of the common school.

Minority Education in America

The recounting of education to this point has been just one side of the American story. There are, of course, many parallel versions of how the youth of America have been educated since the founding of the nation. Perhaps the most impactful is the history of how Black children, before and after Abolition, have fit into the educational system.

In the early days of the nation, there were no public school options available to Black children. Even states that outlawed slavery did not offer public education to residents who were of color. In Southern states deeply entrenched in slave culture, the education of Black children was illegal. White slave owners believed that literacy and knowledge would threaten the slave system, so laws were passed to forbid it. For example, in South Carolina a sum of one hundred pounds was demanded of anyone caught teaching a slave to read or write (PBS, n.d.).

Slavery laws aside, the first 50 years following the signing of the Constitution were not focused on education for children of any race. For Black children, there were some limited educational options in the form of religious schools. The intent of these schools was likely more about conversion than bringing equality to Black Americans through education, but the learning scenarios did exist. The French Catholics in Louisiana established schools for Black students as early as the 1600s, and the Pennsylvania Quakers would follow suit in the 1700s (Questia, 2014). The first African Free School opened in New York City in 1787 with the express mission of educating Black children to bring them educational equality with their White peers (Dubois & Provenzo, 2002). Like other schools of the time, the African Free Schools began as one-room schoolhouses. Public funds were first funneled to these schools in 1824—an extreme departure at the time (Spring, 2009).

Public schools for slaves and free Black children in larger numbers began to pop up in the 19th century. Maine was the first state to grant public school privileges to students of all races in 1820, and Rhode Island voted to do the same in 1843. Black teachers at public schools made less than their White counterparts—except in Washington, D.C., where teachers were considered federal employees and were paid the same regardless of where they taught (Spring, 2009).

In 1849, a young African American girl in Boston, Sarah C. Roberts, was refused entrance to the public school that was closest to her home, “on the sole ground of color.” Her father, Benjamin F. Roberts, was told by the authorities that he would have to enroll his daughter in one of the two public schools in Boston that catered to Black students. Both schools were a considerable distance from his home, and getting his daughter to and from school would have dramatically inconvenienced his family. Roberts tried in two successive years to enroll little Sarah in the nearby school.

When he was rejected for the second time, he brought a lawsuit against the city, citing a Massachusetts statute stating that any person who was excluded from attaining a public school education could recover damages from the city. Though Roberts’s lawsuit eventually failed, it generated enormous public interest and considerable sympathy for the plight of African American students. Seven years later, largely as a knock-on effect of the Roberts case, the Massachusetts legislature changed the state policy to make it illegal to refuse any public-school student based on race. The case was to influence the Supreme Court when, three-quarters of a century later, it would look at segregation in schools in the famous *Brown v. Board of Education* case (Kull, 1992).

Even when public schools opened their doors to Black students, they were separated from their White peers, thus establishing the practice of segregation in America’s public schools. Following the Civil War, states were required to provide public education to Black students, thus ushering in the establishment of Jim Crow laws pertaining to education. These practices followed the law by providing a public education to Black Americans, but they kept Black students separate from White students. The phrase “separate but equal” was offered as justification for the segregation, but public schools were far from equitable (Spring, 2009).

Schools for Black children throughout the country lacked resources, and overcrowding prevailed despite there being fewer Black children in school than White children. As far back as 1900, Black schools in Virginia had 37 percent more students per school building than Whites, and in the late-1930s, Black school properties were assessed at only one-third the value of school properties for Whites (Virginia Historical Society n.d.).

Despite all the strides that public education has made toward equality over the past 150 years, schools with majority Black populations still tend to be the most overcrowded and underfunded. In the summer of 2013, the Chicago Board of Education voted to close 50 public schools in the city. Of the students impacted by the school closures, 88 percent were Black, and 94 percent came from low-income households (Kilkenny, 2013). Those students were then sent to other area schools, further crowding them. During the school year ending in 2011, there were 670 New York City schools with student-to-teacher ratios above accepted contract levels—most of which served minority students (Kuczynski-Brown 2012). Despite the guise of public, equitable schools, overcrowding remains a very significant problem when it comes to the nation's Black and disadvantaged students.

Despite limited Black public and private primary education in the 19th century, the first African Americans began graduating from college. Following the end of the Civil War, the first “Black” colleges were established, and by 1900 more than 2,000 African American students had earned college degrees. However, despite a dramatic rise in that number over the next century, it was not until 1985 that Harvard University appointed its first Black tenured professor (Fitzgerald 2011).

Black students are not the only ones who have faced disadvantages when navigating the educational system of the U.S. While K–12 students today may imagine that the *Brown v. Board*

of Education ruling in 1954 marked the end of injustice in America's public schools, the journey toward true equality in education has still been laborious. Sixty years later, it remains a work in progress (Dubois and Provenzo 2002).

There is still an achievement gap between White students on the one hand, and Black and other minority students on the other. The National Assessment of Educational Progress consistently finds large achievement gaps, or lags in academic success, between one student demographic and another; between White and minority students. The latest comprehensive data, from 2009, indicate that there is a 26 percent gap in achievement in both mathematics and reading between fourth- and eighth-grade Hispanic students and their White peers. For Black students, the numbers were similar. Reading scores reveal an achievement gap of 27 percent for fourth graders and 26 percent for eighth graders. In math, Black students had an achievement gap disadvantage of 26 percent for fourth graders and 31 percent for eighth graders (National Assessment of Education Progress 2013).

Minorities have always had a tough time in America, in education and otherwise. Think back to the large Irish immigration of the late 19th century. These immigrants in search of basic needs such as food, shelter, and religious freedom faced an uphill battle when they arrived on U.S. soil. The prevalence of the Catholic school system today is due in part to the need for those institutions when Irish children were refused an education or were severely bullied and discriminated against in public or other private settings. Generally speaking, first-generation immigrants and their children have less, live in poorer neighborhoods, and struggle on a greater scale with assimilation and language barriers than the immigrants who settled earlier. This is nothing new, but it does impact contemporary students in today's classrooms.

Hispanic students are already at a disadvantage to their peers who were born and raised on U.S. soil because of language, social, and cultural barriers. And yes, there is some outright prejudice and discrimination as well. The difference between today's first-generation American students and those from a century ago is that underachievement and intolerance are no longer acceptable—which gives them an advantage over their immigrant predecessors and leaves at least a glimmer of light that achievement gaps can be narrowed or eliminated.

Origin of the Common School Concept

Horace Mann, who many education experts and historians consider to be the father of the common school concept, was born on the cusp of the 19th century. With his craggy features and passionate speeches, he embodied the spirit of educational idealism during the first half of the 1800s.

Mann was born into an impoverished Massachusetts family and was largely self-taught. He managed to secure a place at Brown University where his oratorical prowess first became evident. He used this rhetorical ability to further his careers in law and politics. At the time, the Massachusetts education system was foundering, and Mann seized on the opportunity. As secretary of the first board of education in the United States, he gave lectures and started the influential *Common School Journal*. Picking up on many of the ideas of the Founding Fathers, Mann envisaged how a system of universal education would best serve the social, economic, and political needs of society. He centered his lofty hopes for the nation solely on the successes of children because he believed that a common experience in school could mold them into successful individuals (Osgood, 1997; Spring, 1994).

Mann developed six educational principles that would come to define his involvement, and would influence the American education system for decades:

1. Citizens cannot maintain both ignorance and freedom;
2. This education should be paid for, controlled, and maintained by the public;
3. This education should be provided in schools that embrace children from varying backgrounds;
4. This education must be nonsectarian;
5. This education must be taught using tenets of a free society; and
6. This education must be provided by well-trained, professional teachers (Horace Mann, n.d.).

Ever expansive in his ideas, Mann also believed that common schooling would reduce hostilities among citizens. Mann posited that as children grew into adults sharing a common educational experience, different socioeconomic, religious, and ethnic backgrounds would become less significant. His vision for schools included a common moral and political foundation as well as the provision of opportunities for children from disadvantaged backgrounds to achieve self-sufficiency and use education to lift themselves from poverty (Spring, 1994).

Overall, Mann's views on the purpose of education expressed in the 1840s, exemplified a protestant, republican ideology. Progressive era education reformers of the 1800s would eventually challenge Mann's perceptions with a new focus on teaching and learning as a science. The progressives were less idealistic and worked toward the development of a more efficient educational system (Tyack & Cuban, 1995).

While the so-called Jackson Democrats were keen to see the empowerment of the White working class, conservatives worried about the uneducated voters and their potential to misuse

the power given them by the Constitution. In 1830, in part to address these perceived problems, a Pennsylvania workingmen's committee investigated and denounced urban public schools because they served mostly the poor and stressed only core competencies. Children in private schools, however, had the means, via a broad education, of pursuing much greater ambitions in life (Tyack & Cuban, 1995).

The workingmen's committee complained that public schools were employing a curriculum that "extends, in no case, further than a tolerable proficiency in reading, writing, and arithmetic, and that sometimes to a slight acquaintance with geography." This criticism of public schools contrasted with the report's assessments of the elite private schools attended by those in the middle and upper classes. The report asserted that:

There can be no real liberty without a wide diffusion of real intelligence ... members of a republic should all be alike, instructed in the nature and character of their equal rights and duties, as human beings, and as citizens; and educated, instead of being limited as in our poor public schools, to a simple acquaintance with words and ciphers, should tend as far as possible, to the production of a just disposition, virtuous habits, and a rational self-governing character. (Tyack & Cuban, 1995, p. 16)

By 1837, Horace Mann was also busy working to mobilize support for public schools along the lines cited for the private schools of the workingmen's report. Mann argued that schools were the training ground for youth and for individuals to be able to participate effectively as citizens of a democratic nation. As such, youth needed to understand the rights and responsibilities accorded to them by their position in the nation.

Mann valued a balanced and broad curriculum, however, and supported the development of one in public schools. One of his published reports stressed the importance of vocal music in

the curriculum. He argued that musical tones had mathematical relations and that the study of music provided an excellent opportunity to apply mathematical knowledge. Mann wrote that “the Creator has made the human soul susceptible of emotions which can find no adequate expression but in song” (Tyack & Cuban, 1995, p.16). Inspired by a trip to Europe, he even argued that universal public schooling would not ensure democratic values but that student literacy could certainly be used in support of autocracy.

Enhancing the academic skills of workers, Mann argued, could enhance economic competitiveness in the nation. For example, he noted that it was in the interest of manufacturing industries to have a pool of workers available who had more than a basic familiarity with such academic disciplines as mathematics and physics (Tyack & Cuban, 1995).

Promoting Knowledge in Ungraded Schools

Mann’s ideas were not limited to subject selection and curriculum design. He had clear notions about what constituted an efficient school system. Mann had a vision for what type of school structure was likely to be most effective for educating the public and seeking to overcome socioeconomic inequalities (though not other forms of inequality) that existed within the United States.

Indeed, Mann’s ideal school system brought children from all backgrounds to learn together in an ungraded school. According to Cremin (1961), Mann advocated educating heterogeneous groups of students together to achieve the “unifying goals of the common school.” Mann believed specifically in the connection between “freedom, self-government, and universal education” (Cremin, 1961).

He believed in the value of a common learning environment and the development of self-discipline. These, he maintained, could be transferred into the types of skills and behaviors

needed for a free society where citizens were not only educated but could make intelligent decisions needed for moral judgment and government participation. For Mann, the purpose of education went beyond intellectual and utilitarian goals (Cremin, 1961).

Accepting that children differ in ability, interests, and temperament, Mann laid the groundwork for lessons to be adapted to meet the individual needs of children (Cremin, 1961). Even after observing what were believed to be successful age-graded schools in Prussia, Mann remained convinced that the single classroom was the best option for children; he did, however, highlight the importance of classifying them so that teachers could provide appropriate instruction to all children (Spring, 1994).

The one-room school, now a nostalgic icon of American history, embodied Mann's idyllic vision of the common school. There was little consistency in the curriculums used by one-room schools, though, and teachers had difficulty grouping children for instructional purposes. "Ungraded" did not mean that grades or academic levels did not provide the basis for organizing children. All it meant, in practice, was that learning took place in the same room, and age did not determine student levels. Students studied in groups based on what they knew and what they needed to learn. Students of multiple ages received instruction at the same level. In some instances, teachers attempted to group students by the levels of the primers the children brought from home. This method proved rather complicated, however. As many of the children did not have the same books, it proved impossible to create an effective comparison or scaled standard (Urban & Wagoner, 2009).

Given the number of children and the different ages of children in the classroom, students principally learned via memorization. Teachers had little time to target individual needs in the classroom. Even with these drawbacks, however, the non-graded, one-room school was an

invaluable institution for providing free public education for children during the 18th and 19th centuries, especially in rural areas.

Many children excelled in learning reading, writing, and arithmetic, even when the time at school was disrupted by the need to work on the family farm. The ungraded structure of the one-room school eased students' return to school after an extended absence; children were able to take a break and then return to learning, based on the knowledge they had retained. There was no penalty for being away from school. Adaptable and flexible schedules helped to address the needs and differences of children who attended the rural one-room schools of the nation (Fischel, 2010; Tyack & Cuban, 1995). In other words, even parents and guardians had fewer stresses in this system, as they did not have to navigate the sometimes infuriating bureaucracy of the formalized education system we have today.

Though the standardized assessments that are part of the educational system today did not exist, children did have oral exams at the end of the school year. These were formal quizzes on what they had learned throughout the year. The purpose of these exams was to provide teachers with information about where to start children at the beginning of the next school year. Passing and failing were not descriptors used to classify children's learning behaviors in the one-room school, as progress was allowed to occur at different rates (Urban & Wagoner, 2009). Only when students took the exams needed to enter high schools outside their rural communities would they experience their first taste of academic success or failure.

Although we risk falling prey to a romanticized view of these schools, it is worth acknowledging that some evidence does support the view of one-room schools as effectively collaborative and cooperative, with children learning both moral and academic lessons.

However, there were still immense issues in the education system. One of the biggest, of course, was that racially segregated schools existed in many states. The common learning experience took yet another blow when the Catholic Church developed a system of parochial schools in reaction to the predominance of Protestantism in American public education (Osgood, 1997). From Mann's perspective, this simply meant more children removed from that communal learning experience.

Mann's real testing ground, though, was his home state of Massachusetts, where intermediate schools emerged as early as 1838 in his home community of Boston. These intermediate schools, however, would also offer segregated instruction and a differentiated curriculum to children who education authorities or teachers deemed unsuitable for the regular classroom. Student characteristics such as age, cultural or linguistic background, and socioeconomic status served to separate children from the "common" and the regular learning environment. Intellectual and behavioral abnormality would later be used as a basis for segregation as well (Spring, 1994) although all forms of segregation in education would appear to contradict the basic mission of the Founding Fathers when they imagined the potential for a public education system.

A serious dichotomy would also emerge in education in the 20th century in secondary schools with the sometimes conflicting goals of instilling traditional academic skills and offering a broader range of practical life skills. The former was often perceived as being diluted by the latter, leading to some controversy as to which one should be emphasized, and to what extent. The so-called Committee of Ten and the Cardinal Principles helped achieve a balance between these two areas of focus. Issued in 1893, the first report of the Committee of Ten, commissioned by the National Education Association, proposed that there should be a rigorous academic

curriculum in secondary schools (Spring, 1994). Headed by Harvard president Charles W. Eliot, the committee was formed because college leaders were concerned about the caliber of learning demonstrated by graduating high school students. In short, the pool of college candidates was not up to standards for a college education (Spring, 1994).

Pressing for a broad but rigorous curriculum, the Committee of Ten proposed that students should have a preparatory curriculum, including comprehensive coverage of fundamental academic skills, but also the study of Latin, Greek, English, modern languages, mathematics, physics, chemistry, astronomy, biology, and social studies. In contrast to this, the report detailing the Cardinal Principles proposed a dilution of academic learning to provide more focus on life-skills, such as how to achieve wholesome relations between men and women as well as forms of vocational training. Both approaches to public education are still apparent in contemporary classrooms as the debate between intellectual and practical learning is ongoing (Spring, 1994).

Age-Grade Classrooms and School Failure

Another issue with the American education system would emerge in the 20th century: the problem of the age-grade classroom. Despite Mann's enthusiasm for the heterogeneous one-room school, the potential of classifying children by any number of characteristics made the shift to eight age-grade classrooms in elementary schools much more plausible and practical. Quincy School, the first school with graded classrooms, opened in Boston in 1848. Although the class size was still relatively large by today's standards—classrooms could have up to 56 students—students were classified by age, and each group was headed by a teacher (Tyack, 1974). A “uniform course of study and standard examinations” followed. Just as children from rural one-room schools had to pass an exam to enter high school, starting with the Quincy School,

children's promotion to the next grade in elementary school depended on their examination performance (Tyack, 1974).

A uniform course of study meant that children in each age-grade learned specific items in each subject area. It was part of a move toward standardization: organizing *what* the children learned, *when* they learned, and *how* they learned. This routine school environment reflected the shift from an agrarian to an industrialized society in the late 1800s. Written achievement tests were used to determine whether children had learned enough to be promoted to the next grade; such tests became integral to this new vision for schools (Tyack, 1974).

As the one-room school faded into antiquity, it was determined that schools should prepare children to be effective participants in an industrial society (Tyack, 1974). The specific structuring of education in age-graded schools also reflected a desire for a level of efficiency believed to be missing from the one-room school, where both the curriculum and degree of professionalism among teachers were deemed academically inadequate (Tyack & Cuban, 1995).

The shift to productivity goals in classrooms is a direct reflection of the cultural change from a society that placed greater value on investment of time and hard work for a better future to one that churned out products at a profit. The eight-grade school structure emerged in urban settings, and decentralized one-room schools were eventually consolidated. Age-grade schools subsequently populated rural areas as well. Tyack and Cuban (1995) point out that over 100 thousand one-room schools existed well into the 20th century; these were eventually eliminated by consolidation for efficiency.

The graded classroom system contrasted with the ungraded one in some key respects, however, and the transition was not always smooth. For example, children who missed days in graded classrooms experienced a distinct disadvantage regarding learning the required material.

Absences were also judged to be disruptive to the learning of all children in the classroom as teachers had to interrupt the pace of learning for the rest of the class to help a child catch up on learning material he or she had missed.

Often, teachers moved forward, while the truant child struggled to learn material for which he or she lacked the foundational knowledge (Fischel, 2010). As most parents will appreciate, though, absences during the year are inevitable. Schools have always served as breeding grounds for illness, which can set a child back for several days at a time. Even a couple of days of absence during the year can become problematic.

Fittingly, perhaps, the tyranny of the test also emerged during this period. Just as parents and teachers were grappling with disruptive absences, they were forced to face the challenges of testing as well. For testing, though, teachers adhered closely to the textbook material, and that material would appear on the end-of-year promotion exams. Teachers also came to perceive student test performance as a reflection of their teaching effectiveness. In some instances, teachers would attempt to isolate or remove children (e.g., by encouraging them to drop out or having them suspended) if they believed they would not do well on exams (Tyack, 1974). Suddenly, test results started to take pride of place above the importance of a child's academic success.

As of 1860, children who did not master the required knowledge stayed in the same grade for the following school year (Owings & Magliaro, 1998). As mentioned earlier, teachers taught using a standard curriculum deemed appropriate for their age-grade classroom and closely followed textbooks so that children learned information that later appeared in testing. Teachers also inculcated behaviors believed to be consistent with the new industrial order. They did this not overtly, as part of the written curriculum, but more often as a species of hidden curriculum

based on how they managed the classroom and their expectations of children. Children were to learn punctuality, regularity, attention, and silence—habits that would prepare them for success not only in the classroom but also in the industrialized workplace (Tyack, 1974).

Emerging beliefs about children's school failure or success were based on the notion that students who lacked appropriate behaviors and were morally lax did not possess the proper disposition that would lead to academic success. In the mid- to late-1800s, teachers used rewards and punishments to motivate students to learn what they had been taught. As a result, students' deportment—their social behaviors—and their moral dispositions were intertwined with their intellectual ability as markers for academic success (Tyack, 1974). It is important to note these behaviors among school reformers and leaders as well as classroom personnel because they help us to determine the emergence of children's personal characteristics—not the approach to teaching or the structure of schools—as the primary reason for failure and subsequent grade retention.

In the late-1800s, labels began to surface that categorized children based on their performance on standardized exams; this practice also has a bearing on our understanding of the way in which children's personal characteristics were assessed within the education system. "Normal" children were deemed able to progress at the expected pace, while children who were not normal were retained (Tyack & Cuban, 1995). The labeling of children unable to learn and pass grade-promotion exams ushered in a practice of blaming the child and holding him or her accountable for academic success or failure without much consideration of the teacher's or the school's role. The inability to progress at a predetermined pace was not deemed to be the responsibility of the educational structure. Apparently, little or no thought was given to the curriculum or the teaching and assessment tools (Tyack & Cuban, 1995).

As school enrollment grew throughout the late-1800s and early-1900s, however, the increased diversity of the student body and further introduction of compulsory education laws helped pave the way for additional sorting methods based on perceived differences. African Americans, immigrants, and an increasing number of girls were beginning to populate public schools, for instance, leaving both race and gender as factors for sorting options (Frey, 2005). Social Darwinism, William James' socio-cultural theory of behaviorism, combined with the use of intelligence tests in education resulted in the practice of sorting students based on ability. Teachers sorted students based on their determination of whether they could achieve the target level. Retention was the preferred way of dealing with children who did not achieve the required knowledge for a given age. It is important to note that studies of this period strongly show the tendency to undermine the educational opportunities for those students deemed unable to perform to a very specific and set standard (Frey, 2005). This set the tone for later developments.

School Failure Leads to Retention and Social Promotion

As noted by Frey (2005), retention rates in the early part of the 20th century reached nearly 50 percent in elementary schools, and 20 percent of children dropped out of school by the eighth grade. Furthermore, retention was more common in the early elementary grades than in later grades. There was increased focus on the "over-age student," meaning students who were older than the "normal" age for their school grade. The high variability in the age of students in any given grade and an associated elevated dropout rate was disconcerting to educators who continued to aim for a highly efficient system of schooling (Tyack, 1974).

Some reformers believed the failure rates were to be expected, given factors such as the rigidity of the age-grade system, the large numbers of students entering the public school system, and the uniformity with which schools attempted to educate large numbers of children

(Deschenes, Tyack, & Cuban, 2001). Cuban (2012) concluded that the structure of schooling during this period was the primary reason for higher retention rates. He suggested that educators would retain children who could not learn within that structure, leaving them with little hope of long-term success.

The influence of progressivism on the nascent system of universal public education was pervasive, and tenets of progressive philosophy impacted public education for a long time. Educational authority Lawrence Cremin proposed that progressivism in education, which lasted from 1876 to 1957, had different meanings for different progressives. For some, it meant “applying in the classroom the pedagogical principles derived from research in psychology and the social sciences” (Cremin, 1961, pp. 8–9). For others, it meant “tailoring instruction ... to the different kinds and classes of children who were brought within the purview of the school” (Cremin, 1961, pp. 8–9).

Some progressives believed, therefore, that schooling should be “pedocentric”; that is, the school system should be structured to the child rather than relying on stimulus-response psychology and minimal consideration of individual differences. The age-grade structure of schools tended to be rigid, and children who did not fit the structure of schools tended not to fare well. These students were either retained to repeat the same grade or pushed to drop out of school altogether (Cremin, 1961).

The practice of social promotion has been attributed to progressives who were interested in the social and emotional development of the child. Others have proposed that there were multiple reasons for adopting social promotion in the late-19th century and its continued consideration into the 20th and 21st centuries. Certainly, promoting children who had not passed

their year-end exams was a practice for some schools before the progressive influence on education became established (Tyack, 1974).

Failing children from certain families, based on status and position, was not popular. In the late-1800s, parents who had influence or could make life difficult for educators sometimes pressured school personnel into passing their children (John Dewey as cited in Tyack, 1974, p. 198). Other reasons for promoting children who had not passed the required exams were more practical. School leaders often needed the space, particularly in the lower grades as increased numbers of students were entering school. Having children repeat grades was also costly. By 1922, some progressives had become concerned about the use of tests to sort students into categories as a means of addressing the retention problem (John Dewey as cited in Tyack, 1974, p. 198).

John Dewey came on the scene amid this conflict of ideas. He was, of course, the progenitor of the Dewey Decimal System, but his ideas on education were perhaps even more influential. A brilliant student, Dewey entered the University of Vermont at age 15 and later graduated near the top of his class. He was drawn to philosophy and earned his doctorate in the field. He taught at the University of Michigan, the University of Minnesota, and finally the University of Chicago where he was director of its School of Education (“John Dewey,” n.d.).

Dewey espoused the experienced-based philosophy of William James, and over time, he became a leading voice of progressive educational reform (“John Dewey,” n.d.). Dewey warned that the school system had adopted a

procedure which, under the title of science, sinks the individual in a numerical class; judges him with reference to capacity to fit into a limited number of vocations ranked according to present business standards; assigns him to a predestined niche, and thereby

does whatever education can do to perpetuate the present order. (Cuban, 2012; Reese, 2007)

Dewey and other progressives believed the school system had aligned itself too closely with science and business—subsuming science and the principles and requirements of business into educational practice. By 1930, a shift in the progressive perspective declared that the way schools worked and their treatment of children were nothing short of inhumane (Reese, 2007).

School leaders and reformers who were invested in the science of education attempted to devise solutions for the outrageously high failure rates. Many districts adopted ability groups and semiannual promotion schedules as a remedy for the elevated retention rates; however, these initiatives were not particularly effective (Reese, 2007). Creating ability groups allowed children to be separated into high, average, and low achieving classes. In the case of the latter, standards were lowered so that rather than being retained, low-achieving students could be passed on to the next grade level with a lower demand placed upon them (Reese, 2007). Their knowledge and skill levels for the next grade level were often dubious at best, but certainly not equal to the skills of average and high achieving students who had also been promoted.

School leaders engaged in the systematic use of intelligence tests to determine the placement of children into high, medium, or low ability groups. The children then went into homogeneous classrooms based on their ostensible ability. School leaders were convinced that this was a democratic way to proceed with schooling and that each child would be able to work up to his or her capability. The curriculum and instruction would be adapted, too—customized to fit the child's ability level and allow for flexible promotion. Supposedly, using tests to determine innate ability would also aid educators with vocational guidance, provide an avenue for

identifying unusually capable (as well as “retarded” students), and help diagnose learning problems (Tyack, 1974).

Homogenous classrooms came under attack for several reasons, with critics particularly decrying the folly of relying on a single test to track a child’s progress while in school. Some critics were also concerned about using a test to set the trajectory for a vocation beyond school. Those who believed in the science of education would not relent on these points, but reliance on tests for classroom placement continued anyway.

Eventually, promotion led to children being separated by social class, with many children who lived in poverty being placed in low ability classrooms. Studies began to emerge that labeled children from various racial and ethnic groups as innately deficient, based on their performance on intelligence tests (Tyack, 1974). People otherwise committed to managing the veracity of test results ignored the links between social inequities and testing bias caused by differences in social class and oppression experienced by racial and ethnic groups.

School leaders believed they had found a solution to issues that threatened to disrupt the age-grade schooling process—albeit a solution that equated school failure with mental deficiency (Tyack, 1974). The ability to promote children unable to pass exams geared toward “normal” children would alleviate the horrendous failure rate and the costly and disruptive crowding of students at the lower grades. Apparently, little or no consideration was given to the long-term implications of this strategy, however, and educators simply grouped the “abnormal” students informally. These students were allowed to move through the school system with a consistently substandard education offered to them, without active efforts to teach materials in a way that might engage these students. We now recognize that many of these students were atypical learners who had behavioral or cognitive needs (Tyack, 1974).

Despite the criticisms and problems with social promotion, the practice remained common through the 1970s, and many schools still practice it today (Frey, 2005). Previously marginalized groups, including African Americans, Native Americans, Hispanics, women, and students with disabilities began to demand that schools stop labeling children as “defective,” advocating for the better adaption of schools and the education system to meet the learning needs of children (Deschenes et al., 2001). By the 1980s, the practice of homogeneous grouping and the associated practice of tracking were also under fire not only for ability grouping that reflected class- and race-based inequalities, but also for using such practices to perpetuated inequities (Oakes, 2005).

A Growing Trend Toward Common Standards for Education

During the 1980s, American educators and the public first became concerned in a sweeping way about the quality of education in tax-funded schools. In 1981, the National Commission on Excellence in Education was formed. The group released *A Nation at Risk*, an in-depth report that warned against the dangers that could result from mediocrity in U.S. public schools. Though the concern should have been purely based on the learning aspect of American students, larger worries loomed, primarily concerning the nation’s economic future. It marked the first time in the history of public schools in America that citizens began to compare students with those in other developed countries such as Japan, China, and even England. The assumption that America the Beautiful was also the best at everything, including educating children, was shaken. People started to worry about where the youth of the nation would guide them in coming years (*Nation at Risk*, 1983).

Educational Reform in the 1980s, 1990s, and 2000s

Education reform of the 1980s and 1990s can be viewed as three distinct phases of educational reform (Finn, 2008). Each phase represents a different conception of schools and schooling, as well as different proposals for education reform. The first phase of reforms began with the release of *A Nation at Risk* in 1983 and centered on recommendations designed to maintain America's strong defense capabilities and competitive position in the international economic marketplace. These reforms assumed that students required a more rigorous education to acquire the abilities and skills needed to interact with industries' increasing reliance on technological advances (Fletcher, 2009).

Another phase of educational reform began during the mid-1980s and focused on teacher practice rather than solely on the need to maintain economic and technical competitiveness. This phase is best represented by teachers' reactions to the growing use of standards-based education. Teachers felt powerless to use their creativity and the teaching skills and abilities that they believed defined them as teaching professionals. Many teachers felt that teacher practice was being dictated to them, as they were required to address the content embedded in specific standards-based content that would later appear on standardized state tests. Even so, standards-based instruction became an integral component of teacher practice and teaching pre-service teachers how to teach (Swanson & Stevenson, 2002).

A subsequent phase of education reform took place at the end of the 1980s and the beginning of the 1990s. This reform, unlike the other two phases, was founded upon the principle that not all students could afford a first-rate education. Instead of the school system being just about education, reform was based on the provision of a range of services, including health, counseling, and even parent instruction. Instead of school policy, the focus turned to child-

centered policy. The resulting school models were referred to as full-service schools (Wright & Alenuma, 2007).

Many states adopted standardized academic content within the framework of a curriculum in conjunction with standardized tests to assess student performance. The intention was to increase student performance while preparing them to meet nationally defined standards. The reforms of the 1990s were characterized by the widespread use of high-stakes tests, defined as tests that have specific consequences for the test taker, along with impassioned arguments for and against increased use of standardized tests (Hewitt, 2008). An example of a high-stakes test would be one that a state requires students to pass before they can receive a high school diploma. Students who are unable to pass the test would be denied a diploma.

These reform efforts were criticized by teachers and other education advocates. Teachers feared that their classroom autonomy was being reduced, as they were required to conform to national standards. They also criticized the fact that national standards were not necessarily relevant to the learning needs of students in their local communities. Some critics argued that the use of standardized tests adversely affected minorities, as the tests were rarely made culturally appropriate and were written for the majority. Some educators maintained these changes would be a detriment to students who did not perform well on standardized tests for any number of reasons (Hewitt, 2008). The most negative aspect of standardized testing associated with standards-based education is that it represents a one-size-fits-all approach to measurement and does not account for differences among learners, schools, and districts. (Marzano & Kendall, 2008).

As it was in the previous two decades, education reform in the 2000s was ripe with change and activity. The roots of the 2002 *No Child Left Behind Act* were planted in 1990s

educational reform movements. NCLB was a revised reenactment or reauthorization of the 1965 Elementary and Secondary Education Act. Both acts focused on ways to bring higher levels of equality to public education, but NCLB also had a strong focus on bolstering student test scores and ensuring teachers were liable. NCLB put new pressures to heighten achievement on every educator, from top education policymakers to teachers in the classroom (Klein, 2015).

A major objective of NCLB was to decrease the gap between low student achievers and high student achievers. Schools and districts not reaching stated annual progress toward the goal of removing the achievement gap would be penalized. NCLB divided opinion. It has been positively recognized for its requirement that student performance be reported in a disaggregated format so that the performance of different groups of students could be evaluated. This has particularly benefited disadvantaged students, whose performance was often overlooked in the past. In theory, this lessened the negative impact of our pass-fail system, as schools were held accountable for the achievement of all students. It forced them to provide quality education to minority and marginalized students or face sanctions (Lynch, 2017). Unfortunately, NCLB set lofty academic targets for schools, all while neglecting to provide the proper resources and supports that they needed to achieve those goals.

While NCLB has been under fire almost from its genesis, the truth is that it remained a large part of the educational system in America's public school classrooms until 2015. The release and adoption of Common Core Standards in 2013 took the ideology of NCLB to a new level. (Lynch, 2017) Though their adoption is voluntary, these new accountability measures seemed eerily similar to the federally mandated ones of NCLB.

The Common Core initiative had its roots in the 1990s when states began creating academic standards for their schools. Governors from various states banded together to create

Achieve, Inc., an organization devoted to the creation and adoption of viable standards. By 2009, a set of common standards had been written and agreed upon, with the purpose of providing a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them (Lynch, 2017). By November 2018, 41 states had adopted the Common Core standards, which offer direction on what students should know in the key areas of math and literacy (Lynch, 2017). A corollary set of standards, the Next Generation Science Standards, was developed for the sciences.

Though the Common Core has been on the receiving end of vitriol, primarily from Republican governors, and several states have withdrawn from the standards, the jury is still out on whether the standards are working (Lynch, 2017). The consensus seems to be that, as with many educational efforts, the top-performing students will continue to get better. However, the Common Core introduces new, more difficult concepts at an earlier age, particularly in math. Students who have not yet grasped the base concepts will not have the foundation to build upon. The result will likely be, as so often in the past, a rash of dropouts who simply do not have the background to do the required work.

At the end of December 2015, with bipartisan support, President Obama reauthorized the Elementary and Secondary Education Act (ESEA), which he called the Every Student Succeeds Act (ESSA), effectively sweeping away NCLB. It's worth noting that both NCLB and ESSA are iterations of ESEA, which is dedicated to providing equal opportunity to all students, including Black boys (USDOE, n.d.). Fortunately, the 2015 ESSA legislation made long-needed and significant refinements to federal education policy. This was a breath of fresh air for many educators, as it was clear that the goals of NCLB were only attainable in a utopian society. Here are some highlights from ESSA:

1. One thing that changed with the ESSA was how teacher performance is evaluated. States can individually appraise how well their teachers are doing regarding performance. This means no more federal meddling on issues of teacher quality.
2. Another alteration under ESSA allows states “to come up with their way to determine the quality of their local schools.” This means that test scores are no longer the sole deciding factor for school performance. I think this is a good idea, as states are better equipped to assess the performance of their K–12 institutions. The federal government tried to do it their way and failed miserably: They simply underestimated the complexity of the task.
3. ESSA lists music as a component of a well-rounded education and gives it more support than previous policies when it comes to access and funding. The law also means federal grant funding is available for states and local school districts to support music education programs and further train music teachers.
4. The law also scores a win for education equity by reauthorizing critical protections of vulnerable and marginalized populations. It also furthers education equity by supporting and growing local innovations—including evidence-based programs and interventions developed by local organizations.
5. ESSA continues the nation’s investment in early childhood education by increasing access to quality preschool education (USDOE, n.d.).

My only qualm with ESSA is that it does not do enough to hold schools accountable, but the fact that it reauthorized the critical protections for marginalized populations from NCLB should be cause for optimism. Will the pass-fail system meet its demise with ESSA? Only time will tell, but it’s a step in the right direction.

Concluding Thoughts

At a high level, this chapter described how the U.S. education system came to rely on a pass-fail approach. The process happened gradually in fits and starts—from the early days when education was a privilege limited to the few to the reforms of Horace Mann’s Common School to modern times when the nation formalized its commitment to provide equal access to education for all. That is, indeed, a lofty ideal. As we have seen in the previous pages, the ideal is far from being realized even though many reformers have worked hard to improve the effectiveness of the system. Some of the strategies have actually been detrimental with very real consequences for a student like Ted Hamm whose story we heard at the beginning of the chapter. The desire of school leaders and reformers has undermined the notion that schools are environments for a common learning experience. At times, reformers have focused on structuring an efficient system of public education without really considering the relationship between efficiency and quality.

Their decisions and actions have often resulted in a focus on ways to sort and separate students to enhance a regimented efficiency for schooling in a largely test-focused way. The practices of retention and social promotion evolved as a substantial number of children did not fit easily into the rigidly organized age-grade system of schooling. The idea of a common education persists today, however, in the form of Common Core standards for what all children should know and be able to do at the various stages of their education. The goal of this effort would ostensibly minimize social promotion, although social promotion and retention continue to exist.

In the chapters that follow, we will explore the contemporary iterations of these practices, their impact on children and the education process, and alternative means to ensure that children continue to learn and progress in K–12. We will do so with a view, not simply to consider what

educators have done in the past, but what we can learn from the patterns of past activity. And ultimately, we do it in the hope that the Ted Hamms of the future will not be hampered by the school system, but that they will be helped by it.

Chapter 2: The True Costs of Pass-Fail Initiatives

As established previously, the current age-grade classroom model has a long history in U.S. education despite much research showing the pitfalls of this structure. While this model serves some portions of the student population well, it does so with tremendous costs to at-risk students and their families. Retention and social promotion, for example, are chronic symptoms of the limitations of a pass-fail, one-size-fits-all approach to education. Unfortunately, much of the costs are borne by ethnic minorities, low-income students, and students with disabilities and their families.

Consider, for example, Edmond Shoat, a Chicago high school student, who dropped out just two weeks before graduation:

I was on probation. I was jobless. I didn't have nothing. With only two weeks left, I just gave up on everybody. I didn't care no more. Like man, forget everybody. F everybody. I just couldn't do it no more. It was too much going on. (Arruza, 2012, p. 5)

Edmond, who had been held back a year, was 19. By any estimate, he had had a hard life. He grew up in Chicago's Cabrini-Green project, notorious for its gang violence. His uncle, who wasn't much older than Edmond, was murdered near their apartment—Edmond heard the shots and rushed out to find his uncle dead.

Following that experience, the family tried to get themselves into a better situation:

I'd say about a month later, my whole family moved out of the projects. My mom, she worked at a nursing home. And you know, sometimes she'd either quit the job, or we'd have to move. We couldn't pay the rent. Or we'd find another job and move somewhere else. We did a lot of moving around. (Arruza, 2012, p. 5)

Edmond wound up at Senn High School, one of the worst-performing schools in an area known for terrible schools. He didn't do badly, however, and got on the football team. But one day, he got into a fight, which escalated and eventually landed him in jail for a week on a charge of illegally possessing a weapon (a pocketknife he'd forgotten about—it wasn't used in the fight). Around the same time, he became a father: His three-year-old son, Rajan, now lives with the child's mother in Atlanta.

A chemistry teacher at Senn, Antonio San Agustin, tried to help Edmond stay on track with his studies while the teen was in jail and working his way through the court system. "He was a good kid," Agustin remembers. "And he came to class, always looking to make up his assignments because he was absent quite a bit. I didn't have problems with him making up the assignments" (Arruza, 2012, p. 6).

But even the intervention of concerned teachers couldn't keep Edmond in school. He flunked his first attempt at the GED and took a low-paying job. He dreams of being able to move to be closer to his son and of eventually becoming an actor. But the statistics are not on his side (Arruza, 2012). We are left with questions that are very difficult to answer in the context of our pass-fail education system: What could have kept Edmond in school? What could have helped him succeed?

In this chapter, I contend that when the education system fails, everyone involved bears some level of cost—students, teachers, administrators, families, and society at large. To understand the true costs, we will look at long-term effects on academic performance; non-academic effects on students; impacts on students who pass; costs to teachers and non-teaching personnel; and costs to families, communities, and society-at-large. Much of these costs play around the issue of social promotion and retention, which are prevalent among certain students.

Academic Costs

The most obvious costs for socially promoted or retained students are inevitably academic in nature. While data on the effects upon students' long-term academic performance are not conclusive, primarily because data-recording is inconsistent, there's enough evidence to suggest that most socially promoted students find that their long-term academic potential is significantly undermined. Academic results are similar for retained students; however, the explanation or causal factor is different (Lynch, 2014).

When it comes to reporting the number of students retained annually, things get a bit tricky. Why? Because most states fail to report grade-specific retention rates at the end of each academic year, and they don't use data and measures that are equivalent across states and over time. To make things even more difficult, many states fail to report retention rates at all; those that do utilize different strategies for calculating them (Warren & Saliba, 2012).

Consequently, education researchers and policy analysts have had to make do with the imperfect information that is available. What we do know is that about 10 percent of all students are retained at least once between kindergarten and eighth grade (Schwerdt, West, & Winters, 2017). Retention is more common in elementary school, with the largest number of students repeating kindergarten or the first grade. Also, retention rates are highest among traditionally disadvantaged minorities, who are most likely to suffer from low academic achievement. In the 2009–2010 school year, the retention rates for Black and Hispanic students were 4.2 percent and 2.8 percent, respectively while the retention rate for White students was just 1.5 percent. Unfortunately, this is the most up-to-date research data that is available (West, 2012).

There is no universal policy to determine how retention is implemented. In some cases, students may be required to repeat a grade, sometimes multiple times, until they meet certain

academic standards (Burkam, LoGerfo, Ready, & Lee, 2007). Retention policies are usually put into effect based on a student's inability to achieve acceptable grades, or in some cases, based on scores on standardized exams. Whereas children with diagnosed special needs have an IEP developed to provide elements of specialized instruction, retained students typically do not receive any specific support. Certainly, it is rare for them to receive support based on data pertaining to their specific educational goals, which would provide insight into areas of learning deficit (Lynch, 2014).

Numerous studies have demonstrated the negative effects of retention on students' academic performance (Xia & Kirby, 2009). The focus of these studies is wide-ranging, from generalizations about why retention and promotion policies do not work to specific studies and reviews of why these policies do not work for certain groups of students. Some studies have considered achievement results in kindergarten and the impact of retention (Burkam et al., 2007; Dong, 2010; Penfield, 2010). Others have tracked test results of retained students beyond the year of their retention (Hauser, Frederick, & Andrew, 2005; Xia & Kirby, 2009; Reschly & Christensen, 2013). Still others have looked at literacy or reading results specifically, recognizing reading levels as fundamental to education (Burkam et al., 2007).

The academic cost of retention is that students do not benefit academically from the use of test-based retention practices. Retained students are likely to make only very small advances in their educational progress. In other words, they are not likely to be that much better off academically, and they may well fall behind in their general education or academic development. Many of the problems can be traced to a loss of confidence in the system (Lynch, 2014).

Neither social promotion nor retention helps to enhance an individual's academic standing and potential, and individual students in many cases are less successful academically

after either retention or social promotion. At best, any positive results (and there is a minimal amount reported) tend to be short-lived and outweighed by the negative effects of retention versus social promotion. There is also the risk that retained students may experience a negative bias or the disadvantage of preconceived notions among other teachers they encounter.

What is the difference, academically, between a child who is retained and one who is socially promoted? Very little, as they both have experienced academic failure and will continue to do so until suitable interventions are enacted. I saw this firsthand as an elementary, middle, and high school teacher. Students who were retained often continued to struggle, as the teachers with whom they had experienced academic failure continued to instruct them using the same methods that caused academic failure in the first place.

Some of these teachers refused to acknowledge that a large part of the students' failure was on them. Instead, they placed the blame squarely on the students. "If the children would try harder and focus more, then they will be successful. If their parents would be more involved and work with them more at home, then they will be successful." On the contrary, teachers who were successful took responsibility for their part in the students' academic difficulties and stopped trying to fit a square peg in a round hole. They started to differentiate their instruction to meet each student's unique and personalized needs.

Nonacademic Costs of Retention and Social Promotion

Retention can destroy self-esteem and otherwise undermine social and personal adjustments as well as students' identity development. Because retention usually occurs during the elementary school years, the destruction can be overwhelming (West, 2012). Retained students have increased risks in health-related areas such as stress, low social confidence, substance abuse, and violent behaviors (Lynch 2014). Several studies have demonstrated that students view retention

as being more degrading and stressful than losing a parent or going blind; the severity of their reaction is indicative of a tremendous cost to self-esteem, social adjustment, and personal adjustment (Reschly & Christensen, 2013).

There is some need to draw a distinction between the nonacademic effects of retention in kindergarten or first grade versus the effects in later grades when a student has an established educational career. It is important to note that most retained students struggle to engage with non-retained peers socially (Lynch, 2014).

Fanguy and Mathis (2012) discussed the psychosocial fallout from grade retention and considered the impact on educators. Their specific goal was to identify counseling needs for grade-retained students through qualitative research focused on the psychosocial responses of retained students and their parents. The study found that retained students reported “highly negative” development changes. Problems included lower than typical self-esteem, higher instances of social isolation from peers, shame about grade retention itself and being older than classmates, resentment of teachers and administrators, and an overall diminished quality of life (Fanguy & Mathis, 2012).

In addition to demonstrating the psychological and social costs, the study emphasized the importance of student integration on the psychosocial level. When students do not feel confident about their placement in typical education settings and when they are unable to maintain meaningful, positive relationships with peers, teachers, and even administrators, circumstances can easily undermine their academic potential (Fanguy & Mathis, 2012).

In his research, Erikson (1968, 1980) considered identity development, which has immediate application to retention and social promotion policies; his research sheds considerable light on these issues. Erikson specifically noted that having a high level of self-esteem is critical

to identity development in adolescents. When adolescents feel good about themselves, they develop a positive identity, while those who do not feel good about themselves tend to struggle with their identity and can develop maladaptive or dysfunctional behaviors.

As Fanguy and Mathis (2012) point out, Erikson's theory about identity development focuses on individual psychological development, including how it pertains to adolescent life and isolates social components of development that include family, school, and peers. In their study, Fanguy and Mathis apply Erikson's theory to demonstrate the most damaging psychosocial fallout in grade-retained students.

In student and parent interviews, Fanguy and Mathis (2012) noted that the most common causes for retention were environmental stressors, apathy towards school, insufficient preparation for the following grade level, and poor behavior patterns. The interview subjects—both students and parents—identified these factors as causes that led to retention. Whether these were, in fact, the actual causes and whether the causes might have been something more abstract, such as the quality of teaching or the nature of the testing, presumably could not be so easily gauged from a student or parent perspective. In interpreting the responses, we must allow for possible bias because of the subjects' perspectives on the situation.

Fanguy and Mathis (2012) performed an in-depth study using eight students who had been retained in eighth grade: five White and three Black; five boys and three girls. All except one were middle class; the remaining student was in a lower income bracket. In a series of interviews with the students and their parents, Fanguy and Mathis identified some factors that led to their retention. Three of the students cited environmental factors: One had been sick for a portion of the year, one's mother had been sick, and one lived in a "bad" neighborhood with

ongoing struggles due to drug transactions and the accompanying violence. Other issues included poor behavior patterns and lack of preparedness (Fanguy & Mathis, 2012).

Three of the students noted that severe apathy set in after they were retained. For two of them, the apathy was directly related to an inability to perform the work. Their hopelessness in the face of difficult assignments led them to misbehave inside and outside of class. Several children expressed extreme distress after they found out they had been retained. One said that she “cried and cried and cried.” Others noted that they became angry and withdrawn. Two students, Lisa and Beth, reported a heartbreaking sense of loss after all their friends had moved on. Beth was in tears when she recalled that her best friend moved to ninth grade and that their friendship was severed (Fanguy & Mathis, 2012).

Teasing by peers was an enormous issue that five of the eight students experienced. They mentioned being called names such as “stupid” and “dumb.” Two of the male students in the study got into fights as a result of the teasing. It is important to note that only two of the parents mentioned being aware that their children were being bullied in this way. Fanguy and Mathis (2012) report the student feedback directly and demonstrate the prominence of psychosocial issues tracing back to retention itself.

The students’ primarily negative experience suggests that retention had a strong and detrimental impact on self-esteem. Even in the case of the retained student who otherwise did not appear to react negatively to the news, the parent’s report indicated that behavior caused retention in the sixth and seventh grades, with peer pressure influencing behaviors as well as disruptive behavior being a factor.

In their research, Fanguy and Mathis (2012) also touched on the long-term impact of retention. Several of the students interviewed implied that they had undergone what they

considered to be a life-changing experience. Several students also indicated they had experienced a dramatic increase in stress and an even more pronounced dislike of school. One student had diagnosed with Attention Deficit Disorder (ADD) after the retention, indicating that the education system sometimes uses student retention as an intervention strategy for the identification of a learning disability.

Low self-esteem signals were assessed for the students participating in the Fanguy and Mathis (2012) study. Five of the eight student participants and five of the eight parents commented that low self-esteem was an issue following the retention. One student's father indicated that he felt his child had low self-esteem, and another parent indicated that their child clearly "felt bad about herself," largely as a result of the retention experience. Two parents also reported that their children were giving up too easily and not believing in themselves, especially in academic areas at school. One of the parents described how their child had called herself "stupid," and one of the students indicated that they were aware that they did not set goals too high because they felt they could not achieve them. The student did not believe there was any point in setting challenging goals.

The researchers concluded that the students might well have had fewer self-esteem issues (and a greater inclination to set challenging goals) if they had not experienced retention and if it had not proved such a negative experience. Several students also said that the teachers had victimized them, adding to the feelings of failure but also making the students angry. They expressed their anger at having had to repeat a year. One student described dropping out of school to escape the anger and sense of failure as well as the victimization by teachers.

According to Fanguy and Mathis (2012), only two of the students interviewed demonstrated any signs of positive self-concepts, describing themselves in a positive light and

feeling optimistic about their abilities. These descriptions were supported by their parents. As with other studies that have assessed retention among students, Fanguy and Mathis (2012) demonstrated that retention is extremely destructive to a student's development on many fronts. Although not all retained students experience such debilitating self-esteem issues, anger at retention, and victimization as the students in this study, the findings suggest that a range of problems apply and often leave students with a sense of failure.

Socially promoted students experienced similar nonacademic problems, including poor self-esteem, poor sense of self-worth, issues with peers, anger, and resentment toward teachers and school administrators, and general apathy toward school. Some studies suggest that peer isolation or bullying is sometimes even more extreme for socially promoted students than for those who are retained (Lynch, 2013). According to Erikson's (1968) psychosocial theory of development (relating it to long-term costs), it is difficult to overemphasize how important high self-esteem is for adolescents and their long-term developmental success. Any experience debilitating to self-esteem is likely to leave students at a serious disadvantage.

Problems in the home can also factor into retention and social promotion problems, and several of the students featured in the study by Fanguy and Mathis (2012) cited a lack of parental support as a problem. Indeed, two students said that they might have done better in school and potentially avoided retention if they had received more help from parents.

Although such perceptions are inevitably subjective, no student, parent, or teacher can know for sure that changes in the home could have helped avoid retention. The perceptions belong to students, whose own identity and conception of schoolwork undoubtedly played some role in the outcome of their academic efforts. There was, at least, a perceived need for students to

have better, more extensive supports. The students also believed that their failing grades were at least partly due to inadequate support in school or at home.

The discrepancy of perceived versus actual need is worth further investigation, particularly about students' lack of accomplishment. Fanguy and Mathis (2012) also conclude that many of the students in the study lacked the skills to advocate for themselves, which potentially identifies another nonacademic cost of retention—that affected students may already be reluctant to ask for help from school representatives or family when they need it.

Costs to “Passing” Students

Students directly affected by retention and social promotion are not the only ones impacted by America's pass-fail education system. Students who pass to the next grade also pay the price for the implementation of pass-fail policies; they also experience costs when their peers are retained or socially promoted. The potential for retention or social promotion is certainly a cause of anxiety for non-retained students as well. Beyond this cost, however, there are several identified and well-documented costs for “passing” students that relate to the quality of teaching provided when teachers must also support retained or socially promoted students.

Fanguy and Mathis (2012) mention reports from retained students that their non-retained peers were increasingly distant. The reports also suggested that passing and retained students experienced significant struggles when trying to socialize in the same grade. Although this observation is not entirely conclusive or indicative of the underlying causes of social withdrawal from retained students, we can infer that there is a risk associated with having a retained student in a classroom. The situation can confuse social experiences for non-retained students—experiences that go largely unaddressed by school support systems (counselors, teachers, and administrators).

Costs to Teachers

Given their criticality in the education process, teachers also experience significant costs related to retention. McNeil (2000) offers some interesting insight, concentrating on the standardized testing of students as a means of “testing” teachers, pressuring them to teach in a certain way, to teach to tests, and the like.

In her review, McNeil (2000) explains the effect of the school system being “nuked” by the standardized testing and graded approach. “The bombs did not fall,” she insists, “on the targeted state education agency or middle-level managers in the state bureaucracy.” Rather, in McNeil’s estimation, standardized testing affected only the teachers. Education reform that brought about the pass-or-fail focus included systems of “testing teachers” and evaluating classroom performance. However, evaluation was only possible by also prescribing the curriculum and emphasizing the testing of students (McNeil, 2000).

The increased use of standardized tests to measure learning and teaching affects the quality of education overall and changes how teachers are expected to manifest the elements of quality. When they are impacted by retention and social promotion, teachers are essentially forced to undermine their skills, trivializing and reducing the quality of the content of the curriculum and encouraging the distancing of children from “the substance of schooling” (McNeil, 2000).

Costs to the Education System and Non-Teaching Agents

Regardless of when retention occurs, there are direct financial costs associated with retaining a student in the same grade. In 2018, the average cost of educating a typical developing and progressing student was approximately \$11,762 (Governing the States and Localities, 2018). Of

the 50 million students enrolled in American schools in a given year, approximately 2.3 percent are retained at a direct cost of more than \$12 billion per year (West, 2012).

Social promotion costs are, of course, much harder to track. Having students of varying abilities within a single classroom undermines the teacher's ability to address the needs of all students equally unless there are specific supports in the classroom. Both retention and social promotion negatively affect our education system's efficiency and effectiveness. Unfortunately, the quality of education that children receive in the United States will remain low so long as the policies of retention and social promotion remain a norm for states and school districts.

Socially promoted students face the same problems as retained students, although from a different perspective: They already struggle academically, but their schools promote them, nevertheless. They not only have to apply skills and knowledge they may not have mastered from the previous year, but they're also expected to follow through and pick up new skills and new knowledge sets at a more advanced level.

Costs to Families and Communities

Families impacted by retention and social promotion policies are disproportionately among already disadvantaged groups (Lynch, 2014). Not only do retention and social promotion policies perpetuate social inequalities, but they also enhance tensions within families by creating the additional stressor of academic challenges. Retention and social promotion (or merely the threat of these policies) create considerable stress for the individual student. Among older students, these stresses come into play when they are already experiencing natural stresses. Even for kindergarteners, retention has been strongly linked to risk factors such as poverty, low maternal education, single-parent status, minority status, English language learner (ELL) status, and male

gender with these factors also associated with poor school readiness (Fruehwirth, Navarro, & Takahaski, 2016).

The relationship between families and schools can prove a key factor in determining the academic success of a student. Challenges in the relationship between family and school representatives undermine the student's potential to excel academically. It may be too much to suggest that a problem relationship between family and school has a negative impact on a student's success, but there is certainly indirect evidence that it undercuts a student's ability to thrive academically (Cannon & Lipscomb, 2011).

In the relationship between family and school, the problems of retention or social promotion are sizeable. From the perspective of family members and parents, the risk of retention and social promotion is immensely stressful because of the perception that either one of these policies is indicative of a limited future for the affected child. At least in some cases, parents look at retention or social promotion as an indication that their child is either unlikely ever to thrive academically (and thus potentially, as an adult) or that their child is not adequately supported by the education system (Tingle, Schoeneberger & Algozzine, 2012).

Costs to Society at Large

Public education, by its very nature, impacts the knowledge and skill set of the population it serves. When the system fails in providing an education that prepares future workers for success in their careers and in life, that failure costs both the national labor force and, more broadly, the national economy and system for social services.

It is ironic that an educational policy so closely connected to the notion of industrialization, the Puritan (or at least Protestant) work ethic, and even modern production efforts should have become so self-defeating. Nevertheless, the truth is that the failure of the

public education system to support students who do not achieve the graded standards by year's end determines that a substantial population of public school students and future workers are essentially unprepared or underprepared for successful participation in the labor force.

In essence, the failure to inspire individual students to succeed in school means they are less productive overall in the workforce. They are less likely to pursue higher education opportunities and, therefore, more likely to be unemployed. They will almost certainly earn considerably less than their more educated peers throughout their lifetime. Our education system is failing itself by producing workers who are unable to contribute to the workforce.

More than this, we undermine the skillset of the workforce because our retained or socially promoted students have likely experienced such a negative perspective of education in general that they are unlikely to seek out further education opportunities (Lynch, 2014). With changes in the workforce, rapid emergence and development of new technologies and knowledge forms, and increased value of intellectual property, our retention and social promotion agenda indirectly undermines the potential for America to compete on a global stage.

Costs to the Economy and Social Services

The current pass-fail system cannot support at-risk students—students from families where there are challenges in addition to what they encounter in the education system. Students who are retained or socially promoted tend to rely more on social services when they reach adulthood. They usually earn less throughout their lifetime than those who are not retained or socially promoted (Cannon & Lipscomb, 2011). These considerable long-term costs mean society must go on supporting affected individuals, rather than allowing education to serve its purpose of enabling individuals to be self-sufficient.

Retention and social promotion policies impact minority students disproportionately. That is, minority students are disproportionately more likely to be retained or socially promoted and to drop out of school. Therefore, policies of retention and social promotion also potentially contribute to racial disparities (Lynch 2014). The same impact appears true for low-income families. Although the correlation between retention and social promotion and low-income families is not perhaps as definitive as the link between minorities and these policies, there is still an apparent correlation and a basis for suggesting that there is a link between poverty and retention and social promotion policies (Lynch, 2014).

The 21st century is not the age of overt prejudices or even necessarily direct and transparent racial, social, or economic discrimination. The disparities that exist, some of which may be growing more extreme, remain rather well concealed. In structured systems like education, disparities often go unaddressed until the situation requires affirmative action. The obvious example with education is that the discrimination against a minority or impoverished student, or even one with a learning disability, occurs from the first day they enter the education system and carries on throughout their career.

Indeed, the discrimination remains in effect, largely unnoticed and undetected, until the affected individual is so severely impacted that he or she is unable to demonstrate appropriate understanding of materials that have been the emphasis of their curriculum for a year. There are secondary costs related to the lack of academic achievement, which includes the individual's lost interest in school and lost potential to excel in areas other than academic achievement.

Clearly some quantitative assessment of performance by students, educators, administrators, and schools will always be needed, and finding a way to reform the traditional assessment strategies will not be easy to imagine or enact. Alternative strategies are complex and

require a flexible implementation to overcome the subtlety and variety of the prejudices that exist. However, the potential of ever-expanding costs surely justifies the effort.

Concluding Thoughts

While we may not be able to quantify the costs of retention and social promotion as precisely as we would like, the general cost of these policies is apparent from the evidence that is available. The various stakeholders in education—students, teachers, education policymakers, parents, and employers—are all undermined by the pass or fail mentality of the current system. We disconnect individual students because of this pass-or-fail policy—disconnect them from themselves, from education, from fellow students, from teachers and other educators, from their families, and eventually from the community at large.

Chapter 3: Rethinking School Design for Better Learning Outcomes

The idea of drastically redesigning the K–12 education experience is far from new. It has long been recognized that teaching strategies require organizational change if student-teacher interaction is to be significantly improved. This chapter outlines some of the most viable strategies for redesigning America’s public school systems. The chapter also includes a review of the research about how students learn best and how to design schools to extend student-teacher contact. It is noteworthy that most effective design options reflect the belief that graded schooling does not support the highest levels of educational achievement.

The Case for Redesign

The core goals of education require that the American educational system be redesigned. But what should the redesigned goals be? As outlined in Chapter 1, the original goals of public education in the United States concentrated on developing productive and engaged citizens with a well-rounded knowledge in different subject areas. It was thought that such citizens would be capable of applying knowledge and skills to function within society and become leaders of the next generation. In the early years, the American education system also had a goal of producing citizens who understood the workings of a democratic government and who were prepared to participate in governing the nation. It was assumed that students should be familiar with the basics of reading, writing, and arithmetic; the sciences and advanced mathematics; literature, art, history, and politics.

The purpose of the public education system, in other words, extended beyond attaining employment upon graduation from high school (Urban & Wagoner, 2009). Rather, the purpose was more about having a foundational knowledge and the ability to apply knowledge and skills,

to analyze and infer but also to appreciate new ideas and concepts, and to be able to work with them.

The current graded education system is mainly focused on college preparation and career readiness. The current pass-fail system has been bolstered by the belief that children should only go to school to learn practical things. This is nothing new, particularly in American culture, as schools have long been viewed as vehicles for job-readiness. Even the Common Core standards, issued in 2013, have this phrase in their mission statement: *The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers* (Common Core State Standards Initiative, n.d.). Another statement in this initiative speaks about the standards strengthening America's place in the "global economy" (Common Core State Standards Initiative, n.d.). There is no mention of education for knowledge's sake or allowing students to pursue their interests and passions. The Common Core standards target practical reasons for knowledge attained in K–12 learning, lending support to the idea that everything taught must have a real-world application.

This push toward teaching skills, as opposed to content, has certainly been a longstanding part of American culture but is contemporarily fueled by the Internet. Schools do not have to be the places where students find classic works of literature or are introduced to scientific theories, because all that information is readily available at the tip of their fingers. Schools, therefore, should not be about presenting as much knowledge as possible but should focus more succinctly on skills not easily attained through a search engine—or so the common belief goes. While it is true that a student who is savvy when it comes to attaining and maximizing information will fare well in the current K–12 system and the workforce beyond, simply finding and repeating knowledge has led to a state of anti-intellectualism in American schools. The idea that all

information for practical knowledge already exists is detrimental to the teaching process and ends in academic failure for many students. It does not take into account that all students are different, and therefore, the education that they receive should be differentiated.

To redesign the current public education system, we must go beyond establishing what the current goals of education are and focus on what these goals should be. We also need to specify why a redesigned set of goals—those targeting higher thinking, independent thought, creativity, analytics, and so on—would be more valuable than the present goals, which concentrate on a more rigid thought process.

Perhaps the best argument for the former lies in the future direction of American and global jobs markets. It is widely accepted that knowledge and innovation are the keys to the success of future business ventures (Lynch, 2017). While in the past, the most valuable commodities of businesses were physical objects, with the recent emergence of the Internet and wireless connectivity, knowledge assets are becoming more important. Today, knowledge is a primary currency, and the ability to apply knowledge is precious. If, as many reports suggest, knowledge serves as the most common currency of the 21st century (Lynch, 2017), then the cultivation of this knowledge should be central to our national efforts, including the efforts of our education system.

Investment in innovation, of course, is something that we periodically hear politicians speak about as well. On several occasions, President Obama mentioned policies targeting overseas innovators and scientists and the need to draw in such individuals to replenish the knowledge banks of the United States (Lynch, 2017). While there may be many benefits to such a policy, outsourcing innovation in this way, leaving it to those from overseas, is little more than a stopgap measure and does not come close to solving the underlying problem.

The knowledge economy is defined as a system for producing and offering services centered around knowledge-intensive activities (Powell & Snellman, 2004). It is also a system that inevitably promotes an accelerated rate of technical and scientific development. And, by definition, the knowledge economy is dynamic and ever-changing with one idea or product quickly replaced by another. Therefore, the knowledge economy prizes intellectual capabilities rather than the physical inputs or natural resources.

In the remainder of this chapter, I will introduce strategies for restructuring the American education system to help all students, regardless of their race or socioeconomic status, become academically successful. The changes I propose will also help high school graduates meet the demands of our 21st-century knowledge-based economy. But before we examine the proposed changes in detail, let's take a brief look back at the first incarnation of the goals and objectives of the American education system, which we touched on in Chapter 1 (Lynch, 2012).

Goals and Objectives of America's Public Education System

Although we outlined some of the original goals and objectives of the American education system in Chapter 1, it is time to take a second, closer look at them. The most notable point about the earliest goals of education seems to be that they were targeted to the individual. Indeed, Benjamin Franklin, one of the most innovative thinkers of his day, recommended an outcome-based approach to education (Pangle & Pangle, 2000). He saw the need to emphasize literacy and numeracy skills. He saw the need for foundational skills.

Franklin maintained that this foundation was fundamental and should be applied to help develop more advanced skills in math and science. Franklin advocated that such knowledge—scientific and mathematical knowledge and understanding—was necessary not only for productivity in the workplace for individuals to be employable, but that it was in the interest of

the individual to understand the world around them (Pangle & Pangle, 2000). Franklin, like us, lived in an age of tremendous scientific advancements. He was responsible for numerous inventions and discoveries himself.

Franklin's objectives remain viable today, especially given the advancements we have seen with computers and with connectivity, with communications, and everything that goes along with communications today. Creativity was also an important focus for Franklin and the other Founding Fathers. Creativity was important to Franklin because he considered it necessary for the individual to see possibilities in an ever-changing world (Pangle & Pangle, 2000).

Of course, it has been argued that the modern education system, including such developments as NCLB, has continued to follow the principles and pursue the goals espoused by Franklin and the other Founding Fathers. Although Common Core and NCLB's replacement, ESSA, for instance, emphasize the importance of literacy and a basic understanding of math, similarities between the modern system's goals and those envisaged by the Founding Fathers were minimal. The Founding Fathers stressed literacy and education as tools to achieve a higher purpose; they envisaged individuals being educated to understand and appreciate the world around them. Franklin envisaged children being educated to interact with their world and their environment on a higher intellectual plane (Pangle & Pangle, 2000).

The beginning of the 20th century saw a shift away from this emphasis although the likes of John Dewey, at the turn of the century, continued to believe that citizenship and character education were important to the national educational policy (Zhao, 2009). Along with compulsory school attendance, there came a shift in emphasis, moving from a higher level of thinking and character development strategies to a stronger focus on math and science skills.

Reading and writing skills were emphasized as well, but the concentration was on the basic skills rather than any higher-level analytical element or appreciation-based approach.

Models and Methodologies to Consider for School and Classroom Structure

A key feature of the proposed classroom redesign is creating a student-centered environment that gives the teacher flexibility to focus on the individual student and adapt teaching methodology as needed. Consider this hypothetical example of a classroom structure designed to facilitate extended student-teacher interaction. In a classroom with furniture loosely arranged around the teacher's desk and nooks here and there for reading or pursuing special projects, second-grader Michael is sitting with his teacher, reading a story he wrote about a watermelon. The teacher is enthusiastic, praising Michael and asking him whether he would like to show the story to some of his classmates. He agrees, and they walk over to three third-grade girls who are sitting together at a table working on their stories. The teacher asks the third-graders whether they would like to listen to Michael's story, and they nod.

With plenty of confidence, Michael reads his story aloud, and the third-grade girls listen intently. One of the girls, Vanessa, comments on his choice of vocabulary: She liked his use of the adjective "juicy," she says. They ask him to read the story again, and on the second pass, another girl, Karen, seems perplexed. The teacher asks if she has an issue with the story, and Karen says that she doesn't understand the last line, which reads: "I like watermelon because when you make it." She says that the sentence seems incomplete.

Michael is confused. He doesn't know what Karen means when she talks about an incomplete sentence and looks to the teacher for help. The teacher encourages the girls to offer ideas. Vanessa thinks for a moment and then looks at Michael. "You can say: 'when you make it, it tastes good,'" she offers. Michael thanks her for the suggestion, and he and the teacher return

to their original spot. Michael decides he likes Vanessa's proposed revision and changes the end of his story.

Benefits of Multiage Classrooms

Managing the organization of classrooms by grade is challenging and made even more so by the inconsistent policies of enforced retention and social promotion. Fortunately, multiage classrooms like the one depicted above are a growing phenomenon in the United States. If multiage classrooms are a starting point for reorganizing the American public education system, there are models to choose from, and the benefits of these models are quite clear.

The multiage classroom operates according to the following principles. First, students are included in the classroom for at least a two-year span in chronological age. Second, each student in the classroom remains with the same teacher or teachers for at least two years, and often longer.

With this model in place, teachers reported being able to perceive each student not as a member of a graded grouping but as an individual with multiple qualities and capabilities (Hoffman, 2003). There is no need to assess each child based solely on his or her level of development, with the graded standards and age-based expectations applied in that assessment context.

Multiage classrooms provide specific academic, social, and emotional benefits for students, as well as the various benefits for teachers in that environment. The academic benefits included peer tutoring, which involves having older students work directly with younger students to transfer skills and knowledge. Benefits to both the older and younger students, the tutor and the tutee, include more independence and greater confidence. Peer tutoring, as a practice in the classroom, not only builds confidence in children but can help resolve the learning challenges of

students who struggle academically. Problem-solving skills can also be easily developed through this approach. Another benefit is that there is more time spent teaching and bonding with a struggling child when the problem of grade retention or promotion is removed from the equation.

Teachers report that they can work with failing students, especially during elementary school years when the problem of retention or promotion is removed (Hoffman, 2003). They can also target underlying academic challenges and take the necessary time and steps to address them. The need to judge whether a student is ready to progress to the next grade is no longer relevant. Teachers can look instead at problem-solving through their teaching strategies and use of supplemental supports. As Yates notes:

Teaching strategies that support brain-based learning [teaching methods based on the latest research into how the brain learns] and emotional intelligence are a perfect fit with the multiage concept ... [and] ... there is no better environment in which children can learn than with an absence of threat, opportunity to make appropriate choices, pursue meaningful content, work collaboratively and have adequate time to complete their work. (2004, p. 72)

The social and emotional benefits of multiage classrooms must also be considered, especially for students who are struggling academically. Teachers have reported that the multiage classroom model allows for a much greater degree of familiarity and mutual understanding between teacher and students (Lauer, 2000). Deeper relationships can also form between teachers and parents, not only because the relationship period is extended, but also because of the greater social qualities of the classroom.

Because there is greater consistency of teaching expectations and behaviors, there can also be a greater sense of comfort and security within the multiage classroom. This allows those

students who might otherwise struggle with transitions to develop a sense of confidence and to concentrate more, in the long term, on their academic development, as opposed to worrying about the social parts of the classroom experience. For teachers, these types of groupings can be helpful, but can also be frustrating.

As an elementary school teacher, Goularte (1998) writes: “For a multiage classroom to survive and flourish, support is needed from the parent community as well as central and site administration” (para. 17). Goularte (1998) was originally a third-grade teacher whose classroom was adjacent to that of first-grade teacher Ziem Nguyen. They often collaborated and finally asked to have the wall between their classrooms removed. Materials were shared among all students, and students were encouraged to move back and forth between the classrooms. For two years, their informal collaboration continued, with little or no pushback from students, administration, or parents. But then Goularte and Nguyen decided to make their relationship formal and get the official designation as a multiage classroom.

She says: “Within a month of a presentation to our staff, describing what we had been doing and how we planned to continue to develop our program, a few concerned parents began disseminating incorrect, negative information about our proposed program” (Goularte, 1998, para. 20). Goularte and Nguyen had to spend the entire summer in meetings, trying to counteract the false information that had been passed around. When fall came, seven parents requested that their children be moved out of the multiage classroom. Three students ended up moving; the rest stayed.

But the story has a happy ending. Parents quickly saw how well their students were doing, and they called the teachers to give them their support. Goularte (1998) mentions one parent who had gone so far as to contact the district office to try to get her daughter moved.

Goularte asked her to come into the class to observe. Once the mother did so, she began offering to volunteer. And then, at the Back-to-School Night, when some parents began questioning the multiage classroom decision, this mother stood up and gave a speech in support of Goularte and Nguyen's work. Goularte says:

Over a year later, during her daughter's second year with us, she came to me to tell me that they were thinking of moving to another state, but she wanted her daughter in another multiage class—that she didn't want her in a single grade class again. (Goularte, 1998, para. 22)

Streaming, Setting, and Banding Models

Streaming, setting, and banding are different models that can be used within the school system to organize classrooms by attributes other than age. The streaming approach allows students to be divided into classes based on a measurement of intelligence or attainment or their developmental level. For instance, students who are receiving As or similar grades on tests or assessments can be grouped for certain subjects. Those who receive Bs or similar grades can be grouped, and so on.

A setting approach may be used to organize the teaching of certain subjects based on ability, even though many schools operate with mixed-ability classes. Streaming can be used for English, mathematics, sciences, and modern languages, allowing classes to be organized regarding ability groups. Such homogenous ability groups allow teachers to concentrate on addressing key knowledge areas pertinent to the students' needs.

Grouping by Common Ability Level

Grouping children together by various attributes unrelated to age or grade can increase efficiency and productivity by allowing the teacher to concentrate on teaching to a specific level. If, for instance, a large group of children was tested for writing aptitude and some students fell into the first through fourth quartiles, it might make sense to group or “band” students by the quartile of achievement for further instruction. Again, doing so would allow the teacher to fine-tune a presentation for a specific audience.

Grouping students based on common ability level would support the needs of the individual at all levels of accomplishment. The goal of each tiered classroom would not be simply to teach the student or the class at some prescribed level. Rather, the goal would be to find each student’s areas of weakness and strength, so that teaching method could be adjusted to challenge as well as support.

Considering the current issues with the graded system, the multiage approach appears to be the best option for redesigning the way classrooms are organized. Even so, we would be well advised to consider alternative organization strategies that still make use of age. Multiage classrooms appear to work particularly well for elementary school-age students, giving younger children time to become familiar with the classroom environment and the learning experience. Nevertheless, all students are different, and some of these differences in interest, ability, and aptitude are associated with age. For a more in-depth discussion of the pros and cons of multiage classrooms, see “Chapter 4: Mixing Ages in Classrooms to Accommodate Developmental Differences.”

Supplements and Supports for Struggling Students

Although the needs of all students must be considered and addressed fairly within the classroom setting, research shows that the students most affected by graded classrooms and associated retention and social promotion policies are those who, for whatever reason, struggle with the academic demands of school (Chen, 2011; Warren, 2014). Students who struggle to perform on standardized tests may or may not have significant learning disabilities. Those students who do have such challenges must be matched with a thoughtful program of emotional/intellectual support and supplemental lessons.

At the outset, it must be clearly understood that the method of providing educational support contemplated here has only a very rough correlation with chronological age or grade. The support needed by a third grader with math problems should not be the same as that offered a high school student with similar problems. But to identify the exact measures that will be most beneficial to a specific individual could very well entail an assessment made under the conditions of a multiage classroom.

Studies have shown the value of early intervention in preschool and kindergarten settings. Early intervention is one of the best strategies for identifying and addressing developmental delay. Moreover, the earlier that specific cognitive, social, emotional, physical, and linguistic delays are identified, the more easily they can be overcome (Reynolds, 2000).

Positive early experiences are essential prerequisites for later successes in school as well as in the workplace and the community. Well-conceived interventions have been shown to have positive impacts across developmental domains (Spivey, n.d.), resulting in improvements in such diverse areas as physical development, gross motor development, language and communication development, cognitive development, and social development (American Speech-Language-

Hearing Association [ASHA], 2008; Center on the Developing Child, 2007; Center on the Developing Child, 2010). Early intervention reduces economic cost to society needed to care for individuals who drop out of high school without having the knowledge and skill to support themselves.

Intervention and support should be integrated into the regular classroom environment. Taking measures to support the developmental needs of a child during regular class time may well be less embarrassing and stigmatizing than pulling the child out of the classroom to work with him or her individually. Moreover, including other teachers and classmates in such interventions can be positive for everyone involved, often producing intended benefits with maximum effectiveness and reducing the need for future support.

Arguably, multiage classrooms can deliver developmental support more effectively than graded classes because teachers have time to get to know the needs of individual children and put together remedial lessons carefully tailored to the needs of specific students. Schools must, however, organize interventions into levels that represent an increase of support where warranted, including universal interventions when available, but extending to tutoring and other intensive interventions.

Effective tiered intervention strategies depend on having accurate diagnostic information and data. One of the targets for multiage classrooms at the elementary level could be the gathering of diagnostic information and data over several years; the goal is not only to support struggling learners in the earlier stages of their education but to use the earlier stages of their education as a diagnostic phase to interpret future developments. Students with learning disabilities and other developmental problems could be better supported in a school system that allows them to develop a strong relationship with a teacher or group of teachers. Such teachers,

perhaps in collaboration with specialist support staff, could direct early diagnostic efforts and targeted interventions to prepare a child for high school and beyond.

One widely used approach for interventions is to provide tiered levels. The first level begins with evidence-based instruction and support provided to all students. Students receive more specialized prevention or remediation within the general education setting when a teacher notes that they are struggling academically, socially, or behaviorally. More intensive, targeted interventions may be used at the second level, including progress monitoring.

A key need, though, is to provide struggling students with supplemental instruction—modified teaching strategies and other modes of specially designed instruction (Reynolds, 2000). Moreover, remedial learning resources would be tailored to individual students with the understanding that different students benefit from different types of strategies and interventions.

Available resources would need to be put in place in the multiage classroom, including peer tutoring and the possibility of developing a deep, long-term relationship with the teacher (Veenman, 2000). A teacher should never teach down to the student or change the material to make it possible for a student to master just enough content to pass a certain test. Rather, teachers should be able to work within the school system to teach the student. Teachers must be able to recognize how each student learns and find ways to apply the right teaching methods to reach the student with content, including higher-level content (Underwood, 2000).

The emphasis of the curriculum would also need to be on the outcome rather than on a limited, grade-like parameter. The goal should be to develop literacy, allowing students to take ownership of the skill and be able to apply it, developing themselves as citizens and as individuals (Underwood, 2012). Speaking more practically, the goal should be to inspire students to take ownership of literacy so that they can apply their reading comprehension skills

throughout their education and in their professional and personal lives, to truly enjoy and appreciate works of literature as works of art. This is the type of outcome that learning should target and that a revised classroom model should ultimately support. For a more in-depth discussion of effective intervention strategies, see “Chapter 7: Intervening Early and Often.”

Alternative Assessments in Redesigned Schools

Redesigned schools would require different models for assessment as well. This section will discuss assessment models and strategies that can be integrated into a school system designed to be multiage and multi-ability.

One of the key benefits of the multiage classroom and one of the key reasons for placing it at the foundation of a redesigned school structure is that it reduces the need to assess students to make promotion or retention decisions (Stone, 2004). Although assessments do not need to be linked to retention or promotion policies in the proposed model (Laitsch, 2006), they do fulfill important functions within the education system. Not least, they let teachers know whether students understand what they are being taught. They can also be used to assess the students' ability to apply the skills they are being taught.

Particularly in the elementary school setting, assessments need to be as nonintrusive as possible to the everyday experience of the students and teachers (Popham, 2010). Assessments should target students who need additional support and those who are not doing well academically after the universal interventions outlined as a first-tier intervention. Assessments are also useful for identifying students who are excelling and could benefit from additional support aimed at helping gifted students. For students who meet expectations and fall within the group of typical students, assessments are also important for communicating with parents, reinforcing a positive learning experience (Popham, 2010) and helping to amass data that future

educators can use to tailor their teaching to specific individuals according to their history of strengths and weaknesses.

In high school, some mode of standardized assessment or preparation for standardized assessments is needed (Pedulla et al., 2003). Universities and colleges must be able to measure student abilities, so they know whether a student is ready for admission for higher education. In this environment, standardized tests are entirely appropriate and needed. They should not, however, be the only form of assessment, or even the primary form of assessment.

Above all, students should benefit from assessments. They should be able to gauge their progress and be able to demonstrate that they can make progress without having their evaluation impacted by difficulties understanding the content of the test or coping with test-related stress (Stiggins, 2005). High school assessments should be preparing students for college and employment. The ability to manage stress, work under pressure, and complete tasks within a time limit is important in the workplace (but less important in an educational environment).

With a diminished concern for retention and promotion policies, one of the better uses of assessment is the assignment of students to tiers or academic groupings (Salend, 2005). For instance, if a student who is in the second tier for science or modern languages scores well on a series of assessments and receives positive teacher reports, he or she could be rewarded with a promotion to the first tier and thus have an opportunity to learn at a higher level. Alternatively, a student who did not score well within the second tier could be allowed to go to the third tier for additional support to tackle areas of weakness or knowledge gaps that might have emerged (Salend, 2005). The retention or promotion issue would not have the same negative connotations (Rothstein, Jacobson, & Wilder, 2008), and students who are concerned about their achievement level have incentive to improve their performance and work their way back up to a higher tier.

Appropriate assessment methods must be coupled with appropriate teaching methods and supports to make the system successful.

Overall, assessments should target analytical thought processes, the quality of written expression, the demonstration of understanding, and flexibility of thinking. Rigid, multiple-choice testing should not be used for student assessment (Stiggins, 2004). To take advantage of the multiage scenario and the potential for collaboration and peer tutoring, assessments conducted in the form of group projects are a better option.

Student progress should be carefully monitored over time, using measurements that are tied to local curricular, state content, and achievement standards (Duffy, 2007). The assessments, however, need to be sensitive enough to pick up the benchmarks that will lead to mastery of specific content.

Even within a multiage classroom, students should demonstrate certain knowledge and skills by age (Duffy, 2007). That demonstration, however, could be relatively flexible, and the mastery of content and skill should be assessed from several different angles, recognizing that different students mature at different rates. While one student may be able to master certain knowledge and skills earlier than expected, another might require an additional year or more to get to the required level. For a more in-depth discussion of assessments in the proposed model, see “Chapter 6: Using Multiple Assessments to Determine True Learning.”

Redesigned Teaching Strategies for Redesigned Schools

Another area to touch upon in considering a redesigned school system is teaching itself. Just as many of the existing assessment models would have little place in a redesigned school system that embraced multiage strategies and multi-ability streaming, traditional teaching models are not appropriate for a multiage classroom or a school system that embraces multi-ability grouping.

The multiage model requires flexibility and creativity in the teaching process itself (Song, Spradin, & Plucker, 2009). Teachers would need to be retrained to ensure necessary competency in the new structure. Moreover, educational authorities would need to determine universal instruction models across content areas along with a rigorous definition of what constitutes high-quality instruction in each area.

Professional development would be important for all levels of education, but especially in elementary school and high school to target preparation of students at the appropriate level using advanced learning models. Teachers should also receive special training on how to effectively monitor the progress of students who have special educational needs. Although a regular education teacher need not expect to take over the role of the special education teacher, they should be able to participate as a key team member in a special education team and at the very least be able to help support targeted instruction.

With a redesigned school system, teachers would also need to receive training and support, so they can develop stronger relationships with parents as well as students. Because teachers could expect to work with students over an extended period, this type of training and support will become more important. Students would be expected to participate in a more challenging learning environment—likely a base curriculum modified at the state level to emphasize a higher level of critical thinking and knowledge. Therefore, teachers should be encouraged to educate parents on becoming team members to support their child’s learning.

Teachers should be able to explain the function of the multiage classroom and the purpose of different assessment models and strategies, beyond what is currently in place. They should also be able to share resources with students and parents to promote higher levels of learning. Models for this type of engagement are employed in schools across the country,

including for instance, the use of reading lists and incentives to have students undertake math assignments over the summer months. More such efforts could be employed to support the higher-level learning objectives in a redesigned education system.

Finally, teachers should receive support to provide students with opportunities to apply practical knowledge or otherwise learn through experience. Assessment opportunities should allow for the same type of learning opportunities as well, strengthening the connection between classroom experiences and the real world. Let's take a look at a hypothetical scenario, where an Auto Shop instructor provides his students with real-world problem-solving opportunities, which also allow him to assess their ability to apply practical knowledge to real on-the-job challenges. In Mr. Rick's Auto Shop class, students learn much more than changing oil and rotating tires. Mr. Rick is a pragmatic teacher: He teaches them to find the solution to the problem, even if they don't know what the question really is.

"All right, ladies and gentlemen," Mr. Rick introduces the lesson. "It seems as though there is a high-pitched squeal coming from this car. The client told me that it only seems to happen when the engine is first started. So, does anyone have any suggestions on where we should begin?"

One of the second-year students, Donald, says, "Let's pop the hood and take a look!" The class gathers around the Chevrolet Tahoe and peers inside.

"What is the first step to solving this problem?" Mr. Rick asks the class.

"I'll bet it's the fan belt!" shouts Donald.

"Good guess there, Donald, and we'll look into that, but for these first-year students, let's back up a bit. Let's think about the problem-solving method. Step 1 is recognizing the problem.

We did that. The problem is that something is screeching when the car starts. Step 2 is clearly defining the problem. So how do we do that?"

Marissa, a first-year student, raises her head and says, "Shouldn't we start the car and listen for ourselves?"

"Exactly right, Marissa," he says, tossing her the keys. "Hop in and crank her up!"

Marissa starts the car and immediately everyone jumps as the SUV makes a loud screeching noise. She shuts the engine off and jumps back out.

"All right, now, Donald, we're ready for your suggestion. Step 3 is suggesting possible solutions. If we think it may be the fan belt, what could we do to make it stop?" Mr. Rick asks.

"Something may be loose!" shouts Owen, a first-year student.

"Maybe it just needs some lubrication," guesses Donald.

"Both excellent guesses. But before we start tinkering under the hood, what would happen if we started playing under the hood and nothing is wrong? Step 4 is to consider the possible consequences. What could go wrong if we start tightening everything around the fan belt?" He pauses and waits for a response.

"Nothing," says Donald. "Well, unless you tighten something too much and strip something, but that's unlikely."

"Good thinking. What else?" the teacher asks.

"What about if you knock something loose that has nothing to do with the fan belt?"

Marissa speculates.

"Both of those technically *could* happen, I suppose. Probably won't if you are skilled under the hood, though. What about the lubrication? What might happen if you try to lubricate?"

"Might spill it," says Owen.

“And that’s about the only thing that could go wrong!” adds Marissa.

“All right, then, if all we risk is spilling the lubrication, and we risk stripping something or knocking something loose by tightening, let’s get to lubricating!”

The class works through the steps again as they proceed to choose what the best type of lubrication would be for a fan belt. After settling on a lubricant, they spray the belt and try cranking the car again.

The squeal is gone! There’s just the smooth purring of a Chevy engine.

“All right, guys! Good going. The final step of the problem-solving method is to observe and experiment to either accept or reject the idea. So, what do you think? Did we fix it?”

“We fixed it!” the class responded in unison.

For more discussion about the teacher’s role, see “Chapter 5: Redesigning the Teacher’s Role to Promote Student-Centered Learning.”

Virtual Learning Options

Yet another option for enhancing student performance in an individualized setting is the use of virtual learning strategies. Although they didn’t surface until the 1990s, the popularity of virtual learning options is evidenced by the fact that half of all states in America now offer some type of online learning program (Lynch, 2017). Almost three-quarters of a million students incorporate online learning into their education. In fact, due to the current generation’s need for online literacy, Michigan recently made it compulsory for students to include online learning as part of their education (Lynch, 2017). With virtual learning options, instruction is delivered without the need for a physical space or infrastructure because learning takes place primarily via technology. Virtual learning options offer everything available to students in physical schools, such as rules that must be followed, a teaching staff, organized field trips, and parent-teacher conferences.

A major benefit of virtual learning options is that they can be used to provide students with specialized programs not offered at conventional high schools. And these options are accessible 24/7, a feature that has proven very attractive to students. Virtual classrooms not only tailor classes to a student's individual learning interests by offering specialized courses, but they also make it easier for students from anywhere in the world to take part in offered classes and programs. Perhaps the greatest benefit of virtual learning options is that they have opened new possibilities for certain student groups, such as those with disabilities, those who are homeschooled, and even students who attend schools that lack the funding to provide specialized courses.

To combat social promotion and retention, school districts are increasingly relying on virtual learning options to facilitate online credit recovery and unit recovery (Davis, 2015). As of 2010, 88 percent, (Davis, 2015) of districts offered some form of credit recovery or unit recovery to students, and it's likely that this percentage has since increased. Online credit recovery and unit recovery are popular options because they are inexpensive and offer flexibility to students. At the same time, critics fear that many of these programs are low-quality and fail to hold students accountable. In some cases, completion is based almost exclusively on seat time rather than on mastery of skills.

Fortunately, districts are developing measures that address these concerns. Below, we'll look at the basics of initial credit recovery and unit recovery and then consider what works and how these virtual learning options can help end social promotion and retention.

Credit Recovery

Credit recovery programs allow students to retake classes online that they have failed in person, which helps them avoid retention and academic failure. Online credit recovery was introduced about a decade ago (Kirsch, 2017), and it has since become a booming business. Using these programs, some school districts have experienced soaring graduation rates, leaving companies competing to sell virtual courses to districts across the nation.

The problem is that when it comes to credit recovery courses, quality varies. Often, the material is not rigorous and, according to critics, these courses serve as a poor substitute for in-class instruction. They are concerned that, in a rush to avoid social promotion and retention, schools put the students who most need teacher intervention and guidance in front of a computer screen, leaving them on their own. In Georgia, a review by the *Atlanta Journal-Constitution* (Bloom, 2016) found that among students who passed online credit recovery classes in subjects covered on the state's standardized tests, only 10 percent demonstrated proficiency in the relevant areas.

There is, however, some hopeful news about the effectiveness of virtual learning options: Competency-based credit recovery programs in which students must show mastery of a topic to advance are beneficial. Programs based on mastery rather than completion demonstrate a positive direction for online credit recovery, and they have the potential to stop social promotion and retention in their tracks.

Unit Recovery

Similarly, unit recovery allows students to retake only the units or skills that they need to advance. For instance, a student who has demonstrated mastery of six out of ten concepts in an

English class doesn't need to retake the entire course—rather, the student can focus on the four concepts that weren't mastered in class. An even better approach is used by the Virtual Instruction to Accentuate Learning (VITAL) program in Putnam County, Tennessee, which doesn't just wait around for students to fail. Instead, VITAL allows students to work on unit recovery modules as they begin to fall behind (VITAL, n.d.). This is very powerful strategy, as the program is ending social promotion and retention before a student experiences academic failure.

Conceptually, online credit recovery and unit recovery are timely ideas, taking advantage of 21st-century technology and giving struggling students a chance to learn key skills at their own pace. But the reality is that some of these virtual learning options lack quality control. State education departments should hold these programs to clearly defined standards, and districts should invest only in credit recovery and unit recovery programs based on mastery and competency, not solely on completion. While deploying these options to prevent or end social promotion and retention is commendable, educators must ensure that students are equipped to succeed long after they cross their high school graduation stage.

Concluding Thoughts

The redesign of America's schools, as this chapter suggests, would involve many levels of change and would take time. Nonetheless, there is immense potential and opportunity to learn from the aspects of the American education system that have been successful in the past and those elements that continue to be successful today. There is also the opportunity to learn from alternative education and assessment models. The multiage classroom approach has a great deal

to offer as a learning environment that reduces many of the negative elements of the current system, elements which make students anxious about school and uninspired by the process of learning.

The goal of a redesigned system is to revive students' passion for learning. One of the qualities that the Founding Fathers cherished was curiosity and a love for intellectual development and study. The talent that existed among those who founded this nation is something that should, even today, help rekindle the nation's passion to learn, to innovate, and to create. The need to inculcate these attributes into our education process is gaining attention because of the importance of knowledge and innovation in our global economy.

Inspiring students to be creative, analytical, and resourceful in their thinking will likely have many other effects. The cost of retention and social promotion policies includes high unemployment rates and reliance upon public benefits, high school dropout rates that are disproportionately high, and many social and emotional issues that manifest as problems of self-esteem. Creating a passion and a true capacity for learning would help to teach America's students to work for themselves, boosting self-esteem.

It is a feature of our time that new ideas and new technologies are making old systems redundant. This can either be a depressing reality for the American worker, or an inspiring and challenging one. It seems reasonable to assume that the quality of one's education might well tip the balance of perception. An individual who has enjoyed high-quality, inspiring education that taught critical thinking and an appreciation of various forms of knowledge will be able to apply innovation and creative thinking to new situations. This is the type of American who overcomes challenges, instead of being left out in the cold by the change.

An interesting reflection of this notion is found in a report on the knowledge economy itself (Lynch, 2017). The modern car is becoming less of a nuts-and-bolts machine and more of a smart machine that applies computer technology to offer better safety, economy, environmental friendliness, performance, and even better entertainment. On the one hand, the technology that supported the initial development of the car—the innovations of Henry Ford and others—is almost entirely obsolete. But on the plus side, innovations are happening all the time, and what was once a relatively limited piece of technology is now a sophisticated product with multiple functions.

Similarly, the innovators of the future will be those who can take existing products and transform them to achieve new results, to perform different or enhanced functions. Ultimately, the American education system should be focused on preparing American minds to make such innovations possible. Even within the education system, we should be striving to do more with the resources that are available to us, supporting greater efficiency, greater results, and a higher purpose.

Chapter 4: Mixing Ages in Classrooms to Accommodate Developmental Differences

Multiage or mixed-age classrooms offer an alternative to graded classrooms and are a key part of the redesigned schools we talked about in the previous chapter. To create these classrooms, schools will need to change not only the structure of their curriculum and application models but also the management of classrooms and their teaching strategies. Multiage classrooms group schoolchildren who differ in age by two or more years into the same classroom. The goal of this grouping is to make the best use of the educational potential inherent in such a mixture of ages.

In this chapter, I will briefly review the rationale and philosophy for multiage classrooms and consider the major benefits and challenges to this way of structuring the education experience. I will also present recommendations for addressing some of the implementation challenges to gain optimum benefits.

Definition and Rationale

Multiage classrooms are nothing new. For much of our history, multiage classrooms were the norm. The one-room schoolhouse is a classic example (Song et al., 2009). Definitions of multiage classrooms have, however, been quite fluid. Before the common school reforms of the 1830s and 1840s, the multiage classroom was typically a single classroom in which all students within a school, no matter what their age, studied as separate grades or subject groups. The

historical multiage model did involve whole-group teaching some of the time, but administrative or economic reasons were often behind this particular use of the classroom (Song et al., 2009).

The graded, curriculum-centered approach to classroom organization, as outlined in Chapter 1, was introduced in the middle of the 19th century and became the standard toward the end of the century. This shift away from the multiage classroom was triggered largely by the nation's rapid economic development and massive waves of immigration (Song et al., 2009).

The multiage, multi-grade single-room schoolhouse had virtually disappeared as the 20th century was ushered in, although this structure still existed in some small rural districts. During the early years of the 20th century, the prevalent model of schooling was an eight-year elementary school and a four-year high school. In 1910, a different structure for schooling was introduced, based on a six-three-three system (Cremin, 1961). This schooling model entailed six years of elementary school education: three years of junior high school, and three years of senior high school. Both the eight-four and the six-three-three systems existed concurrently for some time, with the eight-four system eventually becoming the standard in all 50 states (Lynch, 2015).

Early childhood education also underwent a massive change during the 20th century as provisions were made for pre-schooling, and an increasing number of teachers, nannies, and daycare workers were producing learning materials and teaching children aged five years and younger. This initiative remained mostly in the private domain but represented the first steps toward what we know as kindergarten education today (Cremin, 1961).

For the remainder of the 20th century although most of the multiage classrooms in the U.S. were phased out, pockets of them survived until the arrival of NCLB (No Child Left Behind) (Lynch, 2013).

Modern Multiage Programs

The last decade saw a discontinuation of multiage programs in those states in which they had been implemented, mostly due to the grade-level standards and test requirements established by the now-defunct NCLB act (Song et al., 2009). Nevertheless, some schools and educators who have experience with multiage classrooms continued to embrace the multiage philosophy. Since 2015, when ESSA replaced NCLB, the U.S. has seen a resurgence of multiage programs. This can be attributed to the fact that ESSA minimized grade-level standards and relaxed testing requirements.. (Song et al., 2009).

Considerable research findings support the multiage classroom philosophy as an effective approach to education (Song et al., 2009). Historically, multiage education philosophies have been proven to be useful all over the world, and international models of multiage programs point to various advantages. Multiage groupings in Canada, for example, occur quite regularly in childcare centers and preschools, many of them operating independently of direct government involvement (Song et al., 2009). The rules regarding implementation and management of multiage programs were rolled out gradually and designed to create best practices for centers and schools using the model.

Worldwide, certain educational philosophies make use of multiage classrooms, including the Montessori model and the Reggio teaching philosophy for preschool and primary education. In both philosophies, the self-guided curriculum is also a crucial element and is best integrated within the multiage environment.

Before we examine the benefits and challenges of the multiage classroom, it is worth considering the basic tenets of its guiding educational philosophy for child-centered learning. The basic assumptions include: (1) children learn as a *total person*; (2) children go through

similar stages of development but experience stages differently; (3) the way children feel about themselves and their sense of competence in learning impacts their learning; (4) the best way for children to learn is through interaction with the environment and with people; (5) children learn best when they are taught via an integrated curriculum that allows for pattern-building and access to sensory data; (6) children should not be given knowledge but allowed to construct it themselves; (7) the process of learning depends on social interaction; (8) children learn the skills of communication and expression through sharing their learning with others; (9) children learn math skills and processes best when allowed to explore, discover, and solve real mathematics problems; and (10) children learn best in a classroom environment that is organized but flexible and imbued with developmentally appropriate tasks (Song et al., 2009).

In other words, child-centered learning is just what it claims to be: The child is the focus of the education effort and is allowed to create the lead focus of curriculum and teaching strategies. The assumptions also emphasize an important developmental point: Every student develops differently. While developmental phases are similar for each of us, we experience each phase differently and are affected by developmental phases in different ways.

Benefits and Challenges of Multiage Classrooms

Multiage classrooms come with challenges as well as numerous benefits; consider this story from Sarah, a teacher in the Midwest, which shows both (Lynch, 2013). Sarah's school is in an urban setting. Her school had been chosen to participate in a pilot program to bring multiage classrooms to the school district. Sarah found herself teaching a mixed classroom of students from first through fourth grades with a ratio of 10 boys to four girls, which she noted was a significant error and led to difficulties. For a multiage classroom to work at an optimal level, students should be no more than three grades apart, and the classroom makeup should represent

both genders equitably. If these prerequisites are not met, administrators of multiage schools are setting their teachers up for failure.

Sarah received a total of one day of training in preparation for the multiage classroom assignment, and she displayed a high level of anxiety about the class. Sarah noted that there were no structures for collegial planning and staff development in place that would have allowed her to bounce ideas off colleagues or receive mentoring. The administration expected her to deal with the change entirely on her own.

Though Sarah had been allotted \$2,000 for classroom materials and had been told to boost the level of computer-assisted learning, the money did not arrive until after the school year started, leaving Sarah floundering to fulfill her mandate. Once the computers did arrive, there were problems with implementing the technology. The school had contracted with a software company from another state that essentially guaranteed growth in math and reading skills as long as the classroom met certain standards. One of these standards required that students spend half an hour a day at the computer; if they missed a session, Sarah was expected to supervise a make-up session.

Sarah was not the only teacher in difficulty at the school; problems were widespread, and dissatisfaction among the teachers was rampant. In the final analysis, Sarah, was one of the few teachers who succeeded in getting a handle on the material. Some teachers went on strike, largely due to the multiage pilot program, and several resigned (Lynch, 2013).

As this example demonstrates, implementing multiage classrooms requires more than directives from the administration or district-level authorities. Teachers must be given adequate preparation, and if new technologies are introduced, this should happen well in advance. Studies

have shown that, if implemented correctly, multiage classrooms offer significant advantages, and multiage groupings can increase academic achievement levels (Mulryan-Kyne, 2007).

Educators have been attracted by the benefits of the multiage classroom for some time. This is at least one of the reasons for the considerable diversity of the multiage model; that is, so many organizations, groups, and educators have applied the model one way or another. However, the often idealized model, which is specifically targeted at educational outcomes and the developmental benefit of the child, concentrates on creating a diverse but balanced grouping of students of mixed ages and mixed abilities. In the most idealized model (Mulryan-Kyne, 2007), the notion of having mixed abilities also extends to including both children who are gifted and those with special needs in the classroom at a ratio that promotes mainstream inclusion.

Significant Gains in Reading and Language Skills

The theory behind the model is that there are tremendous benefits to having a social and natural setting that is enhanced with these levels of diversity (based on age as well as ability).

Specifically, this type of multiage classrooms can help to improve or otherwise enhance the social and emotional skills of students. Some research (Logue, 2006) on early childhood multiage grouping has shown that student disobedience is much less common in multiage groupings compared to that of single-age classrooms. Higher language development has also been noted in multiage groupings compared to that of single-age classrooms. It is thought that this is because there is more language exchange among mixed-age children (Lau, Juby-Smith, & Desbiens, 2017).

Research conducted in the 1960s demonstrated that there were significant gains in reading and language-skills areas for students in multiage classrooms, especially compared with peers in single-age classrooms (Skapski, 1960). Although there is little recent research to

replicate these findings, some recent studies have targeted multiage classrooms (Broome, Heid, Johnston, & Serig, 2015). These studies showed evidence of higher and faster cognitive development for those in multiage classrooms compared with those in single-age classrooms.

Lower Stress Environment

From personal experience as an elementary school teacher, I have found that the first day of school is far more relaxed and comfortable for elementary school students and teachers in multiage classrooms. The pressures are lower for two reasons. First, the environment is familiar to a portion of the student population. Second, the teacher is familiar with the students and, in the case of a teacher who has been in the same position for some time, there is familiarity with the process of managing the classroom and integrating new students moving forward. Student worries about grade retention or social promotion—a major source of anxiety for many students—are not applicable in the multiage classroom, and thus the classroom is less stressful than its single-age counterpart.

Student-Centered, Project-Based Environment

A key advantage of the multiage classroom is that it lets students learn at an individualized pace, working to reach their full potential but in their own time (Stone, 1994). Teachers tend to focus on the progress of individual students within the multiage classroom. This focus is better supported in the multiage environment, especially as an alternative to moving through textbooks or working on a rigid schedule, as so many teachers must do in a single-age classroom.

The student-centered, project-based learning environment is more likely to emerge when there is motivation and focus. Students of different levels are better able to pay attention to individual projects, and the curriculum can be designed to challenge the knowledge and abilities

of the individual student. Work can be more easily designed to challenge specific knowledge and abilities with the student-centered, project-based approach, especially when compared to the common curriculum.

Recommendations for Multiage Classroom Development

Consider this example of a multiage classroom that strikes the desired balance between benefit and challenge to deliver an effective teaching-learning experience. Paula Carter teaches in a multiage classroom at Rita Cannan Elementary School in Reno, Nevada. Many of the students' parents are involved in low-income unskilled jobs associated with the gambling industry. Seventy percent speak a language other than English at home, and 88 percent qualify for free or reduced-price school lunches. Because of the nature of the work in the city, the transience rate is close to 50 percent (Carter, 2005). To counter this, Rita Cannan Elementary requests that parents keep their children in the school for at least three consecutive years.

Carter's (2005) classroom incorporates first-, second-, and third-grade students. When asked why the school does this, she responds: "I can't think of a good reason not to," and she adds that "multiage grouping builds strong relationships among teachers, students, and families" (Carter, 2005). Prior to her teaching assignment, Carter had experienced a multiage model classroom in her university training at the University of Nevada-Reno and always knew it was something she wanted to try. "Older students bring new students into the fold by showing them how the classroom works," she says (Carter, 2005).

We hear them coaching the younger children: "Try it again! Don't forget to use your strategies. Get your mouth ready to say the word." We also hear them comforting students: "That's OK. You'll do better next time. An 80 percent isn't a bad grade." (Carter, 2005)

One factor that makes Carter's classroom a success is that she team teaches with Theresa Crowley, who speaks fluent Spanish. This assists not only in communicating with the students but also with the parents, many of whom speak no English. Initially, Carter and Crowley spent much of their time in planning activities. However, as their relationship has grown, it has changed and deepened. Carter (2005) says: "Now we see ourselves as observers of children, looking at what has transpired in the classroom and what needs to occur to support each student every day."

Some critics question whether it is possible to implement a multiage classroom. Students from first grade, they say, will have different abilities than students in third grade. However, Carter notes that student abilities differ widely even within a single grade. In her classroom, they group students for various tasks and various purposes, noting that they want the students to feel as though they are a part of a family. The multiage classroom, in Carter's estimation, works. Recently, she was able to compare students who had spent two years in her classroom with their peers in a single-age classroom. The students in her classroom were more fluent readers, justifying her approach (Carter, 2005).

Substantial Benefit for Disadvantaged and High-Ability Students

Certain student demographics reap the greatest benefits from multiage classrooms. The demographic that benefits most is one that has both disadvantaged students and high-ability students. In other words, the multi-ability element is important in the multiage classroom (Carter, 2005; Melliger, 2005). Of course, this has the potential of creating a further problem in that there are specific challenges to establishing and managing multiage programs in high-poverty schools. It is difficult to organize classes to include a sufficiently diverse group of students regarding ability. However, careful planning can lead to success (Carter, 2005; Melliger, 2005).

Without question, one benefit of multiage classrooms is that struggling students gain from the more individualized learning environment—an environment that is typically caring and supportive of diverse learning. High-ability students also benefit because of the resultant variety and because opportunities are not limited to students who struggle academically. While programs for high achievers exist in a variety of forms, including after-school activities, summer camps, and honor classes, being involved in a diverse population of various ages is also important. Multiage classrooms require the considered development of differentiated curricula and instructions, and they require the development of a curriculum that is specifically designed to meet the needs of all students.

It is crucial that multiage classrooms maintain consistency in their objectives and focus on the guiding philosophy of student-centered and project-based learning. Setting aside the mixed research from the mid-1990s, the importance of this approach is apparent, especially because of the wide range of ways in which multiage education can be implemented (Veenman, 1995; Veenman, 1996; Mason & Burns, 1996; Mason & Burns, 1997). When implemented with an awareness of the best practices for management of multiage classrooms, positive outcomes emerge, and students have the opportunity to do well.

Barriers to Overcome

The lack of recent academic studies validating the academic benefits of multiage classrooms, as perceived by teachers and other educators, appears to contribute to the general doubts surrounding the workability of multiage programming. While many seem ready to accept the philosophies of the multiage classroom, skepticism about the potential obstacles of switching from the single-age model appears to be something of a stumbling block. This skepticism is at

least one reason we are still on a path of standardized testing, grade retention, and social promotion policies, and focusing on having students regurgitate knowledge rather than learn.

Preparing for Implementation

If education administrators want to implement multiage classrooms in their schools or districts successfully, they need to develop a viable implementation plan, which includes contingencies for potential missteps and roadblocks. In many ways, the success of your implementation plan hinges on one thing: whether or not you have buy-in and support from parents and teachers in your district. If you do, things should go quite smoothly.

Parent education and teacher education are thus two crucial components of a successful multiage classroom system, especially one on the scale envisaged here; one that will replace the graded approach and, among other things, remove grade retention and social promotion from the American public education system.

Winning Support from Parents

The first and perhaps most obvious barrier to any change in the American public education system is reluctance among parents. According to some researchers, parents are particularly prone to dissatisfaction and rejection of new models for the education system (Aina, 2001). They often have concerns for the long-term stability and academic success of their children, and rightly so. In their opinion, school should not be an environment in which there is considerable experimentation with standards and procedures. Parents believe that teachers and administrators—and even students—should be prepared to experiment a bit to understand what models and approaches work best in a specific situation, but even this level of experimentation is expected to occur within academic standards. The last thing most parents want is to have their

child participate in an experimental change in education standards, only to find the experiment a failure.

Many parents are not fully aware of the philosophies of multiage classrooms or of the wealth of research supporting them. They have concerns about their children being grouped with other children of different ages and are often worried about the quality of instruction (Stone & Rodger, 2005). Such concerns are not unreasonable. Teachers must be given adequate support and professional development training before they can be expected to successfully implement and integrate a new educational model of any type, and especially one that is entirely different from the one they are used to.

Unfortunately, parents are sometimes not included in the decisions to change direction in education; nor are they necessarily informed. Parents of older students sometimes feel their children may learn less in a multiage classroom, while parents of younger ones worry that their children might be challenged too intensely (Stone & Rodger, 2005). Loss of confidence in learning abilities is also a concern. Again, though, such concerns are rational and can be addressed and lessened with the right supports.

To address the misconceptions and concerns that parents have about multiage classrooms, teachers and administrators must take a proactive approach, addressing these issues before they even occur. How do you do that? In the conceptual stages of multiage classroom design, invite parents to attend a town hall-style meeting, where the proposed school redesign will be discussed, along with research on the benefits and drawbacks of multiage classrooms. Elicit parent feedback during and after the meeting, so educators can answer parents' questions on the spot. With this process, any additional misconceptions and concerns can be addressed, and parents walk away knowing that they were included in the process. Also, invite two or three

influential parents to join the steering committee that will be charged with conceptualizing and implementing the new school design.

Getting Teachers to Buy-In

The most important consideration is teacher buy-in. When initiating new multiage classrooms, it is essential to address the need for teacher preparedness at the outset. Winning teachers over to the educational philosophy of multiage classrooms is another necessary step for successful implementation. According to one study, eight in 10 teachers oppose differentiated instruction (Song et al., 2009). In some situations, the teachers doubt their abilities and are unsure whether they will have the necessary supports at their disposal to assign groups with different work and to teach the material. As in any other educational environment, students may not enjoy optimal benefits from multiage classrooms if teachers cannot implement best practices to put differentiated instructional strategies, environments, and assessments in place. Offering professional development workshops on multiage education, supporting differentiated instruction for teachers, and providing detailed information for parents can help schools implement multiage programs successfully.

Since teachers with more extensive training and professional development tend to have the opportunity to teach multiage classes, the experience gap between those who teach single-graded classes and those who teach multiage classes can become a problem. That gap is identified as potentially leading to feelings of superiority in multiage groups (Hoffman, 2003). Teachers who are opposed to change can undermine well-meaning multiage classroom teachers.

As with parents, a proactive approach is needed to win teachers over. Before implementing multiage classrooms in your school, hold mandatory professional development sessions that train every teacher on how to teach and manage a multiage classroom. Also, use

these sessions to educate teachers on the evidence-based benefits of multiage classrooms. Ask teachers who have more experience and training with differentiated instruction and multiage classrooms to mentor those that are less experienced. When teachers are well trained and informed on new reforms, they tend to buy in more easily.

Addressing Administrators' Concerns

Administrators can also struggle with the concept and the management of multiage classrooms. However, their issues are mainly due to the federal and state accountability laws that require students to take standardized tests by grade level (Song et al., 2009). Because multiage classrooms tend to blur the grade level standards and do so deliberately (at least to some degree), it can also be difficult to administer standardized tests fairly. Many principals have reported that it can be difficult to operate two types of structures in one school (Song et al., 2009). But this problem is solvable if graded classrooms are entirely or at least mostly removed, and if the federal and state accountability laws requiring standardized tests are revised to end or reduce that requirement effectively.

Principals have reported challenges because multiage groups often need special field trips, school schedules, and equipment (Song et al., 2009). There may also be a need, on occasion, for two separate groups for the events, designed for specific grades. All these considerations create challenges for the school administration and budget management. The takeaway is that multiage programs do not fit neatly into the traditional organization for schools; they are not designed to.

Having single-age and multiage classes in a single school can result in some inequality. Because the teachers assigned to multiage classrooms are usually the most highly trained and their students are often the most gifted, they often believe that multiage classrooms are superior

to single-age classrooms. This inflated sense of superiority can cause conflicts with teachers and students in single-age classrooms.

On the other hand, some schools use multiage classrooms as a sort of graveyard for students who are deemed to be falling too far behind (Mulryan-Kyne, 2007). These classrooms would include students traditionally impacted by retention or social promotion policies. Using multiage classrooms for this purpose is not at all consistent with the guiding philosophy we reviewed at the beginning of this chapter. It is hardly surprising, then, that the application of the model in this way can create low self-esteem in affected students.

At all points of contact, stakeholders must emphasize the need to learn from both current and past issues and properly align the multiage program with the curriculum. Multiage classrooms are often not aligned with graded and curriculum-centered educational agendas in the United States, and this contributes to the challenges of making the necessary shift (Stone, 2004). One of the greatest difficulties for administrators looking to implement the multiage program in traditionally organized schools is that they must operate two different programs in one school or have to operate a program that is incompatible with the legal state and federal requirements of accountability.

Administrators, like parents and teachers, must be supported if they are to make the shift and go beyond what has been acceptable in the past, in a bid to “make room” for multiage classrooms. Whereas school administrators have gone about creating space for multiage classrooms in the past, trying to force them into what already exists, administrators must instead be supported in creating multiage classrooms that exist outside the graded system. Based on research, some of which is mentioned above, there is little argument that multiage classrooms cannot fit within the traditional graded school system. To make multiage classrooms beneficial to

all students, administrators should envision the classrooms as a “school within a school” (Stone, 2004).

School administrators must do more than apply multiage education as a quick-fix solution for the underserved or for those who are not succeeding in the traditional classroom. Multiage classrooms should not be used as a dumping ground but should be considered part of an established multiage program designed to be something more substantial. Indeed, administrators must essentially revise their thinking to ensure that multiage classrooms are perceived as the best option for providing students with an excellent education.

Finally, there is the problem of federal and state accountability and how the existing systems of accountability depend on standards, assessments, and school performance accountability. Creating a K–12 education system that emphasizes the achievement of all students and the academic, social, and emotional development of students is crucial, but it is also something that cannot be rushed. The accountability issues currently manifest as supports for a system that emphasizes the achievement of the “bubble kids,” or students just below the passing rates or cut scores on standardized testing (Song et al., 2009).

Shifting to multiage classrooms should also concentrate on this notion of providing individual students with access to challenging but developmentally appropriate instruction. More than this, though, there should be a clear effort to embrace the potential for creative and innovative learning. The opportunities for this learning and the obvious need for it should be emphasized as one of the principal reasons for the shift to multiage classrooms. The need to embrace the true principles of education is central to all the benefits, challenges, and subsequent recommendations for multiage classroom development and management.

Researching Best Practices

Because of the factors mentioned above, the ideal model of multiage classrooms is not easily implemented and is not aligned with current regulations and policies. This should hardly be surprising. However, even with the limitations and barriers cited in this chapter, there are significant reports of the successful application of multiage classrooms (Mulryan-Kyne, 2007; Song et al., 2009; Ong, Allison, & Haladyna, 2000). Schools that operate multiage classrooms effectively do so by planning, taking the time to introduce the program to parents properly, and ensuring that teachers are educated and have plenty of ongoing professional development.

Although the multiage classroom is not perfectly aligned with the current policies, many schools have implemented multiage classrooms. They have also shown rapid progress by doing so in the correct way, ensuring that the multiage philosophy and child-centered approach are central considerations.

One such implementation is the West Belden campus of the Chicago International Charter School network, which is a mix of multiage and single-age classrooms. One classroom of note has a combination of third- and fourth-graders, who spend each day learning together. In this multiage classroom, teachers technically specialize in one grade—Christina Hanna in fourth grade and Kelly Pollack in third grade. However, they think of all the students as theirs, and flexible groupings mean students can receive support and instruction in either grade, as needed.

The school looks at nontraditional grade groupings as another way that they can respond to students' personalized learning needs. West Belden first tested their hypothesis on a first-through third-grade multiage classroom (which it no longer has), and during the 2017–2018 school year, it divided its middle school into one instructional team for fifth and sixth graders

and another one for seventh and eighth graders. Each day, these middle school students see four different teachers on their respective teams.

What is also unique about their approach to personalized learning and multiage classrooms is that the school structure changes almost every year, based on the recognized needs of the students. Collen Collins, the school director, reports that her teachers meet at the end of the year to plan the best ways to meet the needs of incoming students. “We’ll look at data to see if we have the successes and celebrations that we’re hoping to see based on our structure this year,” Collins said. The teachers analyze student growth data from standardized tests and develop a plan that they believe will work for their students.

For instance, Hanna and Pollack pitched their idea for a multiage classroom after they had the experience of working with their students in separate classrooms the year before. For two hours each day, they had merged their second- and third-grade classes and noticed their students retaining much more information than they did when the grade levels were disaggregated.

In their multiage classroom, they watch student performance and conduct formal and informal observations. Sometimes, the data leads them to believe a child should be in one group, but they notice the child isn’t performing, so they mix things up.

In addition to offering more personalized learning experiences for students, the flexible configuration in West Belden gives teachers a sense of purpose and empowerment. Pollack and Hanna report that teacher morale is high and that teachers have bought into personalized learning and the multiage classroom (Mathewson, 2018).

Currently, grade-based academic standards and high-stakes testing are designed to correlate with curriculum-centered instruction, but it is impossible to apply the same curricula or even to use the same grade-based academic standards and tests to teach or assess a diverse group

of students. It is already clear that the traditional grade-based approach and the use of high-stakes testing neglect the needs of many students, including high and low achievers (Lynch, 2017).

Alternative curriculum, assessment model, and academic standards are needed, together with a focus on multiage classrooms.

As we outline recommendations and requirements for multiage classrooms, however, it is important to note that positive outcomes are not guaranteed. Certainly, they are not guaranteed in the absence of appropriate administrative and instructional support, which must be implemented alongside a considered multiage curriculum and classroom model.

High-quality research must be done to assess not only the effects of multiage education in a modern context, essentially updating the research that has already been done, but also validating, through research, the best practices and policies for administering multiage education. Research is needed, in other words, to determine precisely how students should be educated in a multiage classroom. Research is also needed to determine exactly what type of curriculum would best serve students in the multiage classroom, how accountability regarding academic standards and curriculum might be defined and implemented, and how students should be assessed.

Researchers will also need to look at patterns for teaching language development, reading, and mathematics in multiage classrooms, outlining what the expectations ought to be and how they ought to be defined. Assessment of the average accelerated gains of students in these areas within the multiage classroom will also be a requirement.

Another area in which research needs to be conducted relates to parents and teachers. Both these stakeholders tend to lack a full understanding of multiage education. Parents often express resistance when faced with the possibility of switching to a multiage classroom. Teachers also tend to indicate that they have not received adequate training to be confident

teaching multiage groups. The two problems tend to go hand in hand, and parents also worry about the multiage environment because of the potential issues with instruction quality.

The processes for implementing parent and teacher education will be different, and the focus of the education must likewise be different. Parent education and teacher preparation are essential but must, to be effective, we must target the respective groups independently. Parents must be educated about the multiage classroom and its benefits and challenges from an educational perspective. They must receive information and support to help them understand not only what the benefits and challenges are, but also the process for implementing a multiage classroom.

It is necessary to make sure that parents can be involved in the process of reviewing implementation plans for establishing multiage classrooms as the standard for education in America's public schools. Furthermore, the elements of curriculum and teacher training and support should be understood by parents. Parents must be reassured that teachers will be able to meet the needs of all students.

As indicated previously, age-balanced classrooms containing students of a similar level cannot be achieved easily if parents do not fully understand and support the underlying philosophy; therefore, and this should also be a consideration in the implementation of a multiage strategy. Teachers, for their part, must be educated and prepared to manage multiage classrooms and given intensive support to maintain an appropriate level of professional development over time. It is not enough to promise that support will be available. Rather, the supports must be in place and made use of effectively. Honesty and accountability are key factors.

Concluding Thoughts

As outlined thus far, there is a need for substantial and systemic change in our education system nationwide, not just an end to the specific policies regulating retention and social promotion. Indeed, the strategies discussed in this book are not exclusively or even primarily concentrated on the ending of grade retention and social promotion; these problems are merely symptoms of a greater disease. The true focus should be upon putting an end to the graded education model and the related problems of standardized assessments and graded curriculum—problems that hamper student learning, often leaving the most vulnerable and the most talented of our students without a place in the educational system.

Multiage classrooms can be an opportunity for developmentally appropriate, innovative, creative, and engaging educational opportunities. The multiage classroom also has tremendous potential as an educational approach if supported by skilled, qualified, and dedicated professionals in various capacities. It bears repeating, though, that an added layer of engagement, challenge, and innovative thinking is needed before a multiage classroom can be implemented that is both effective at achieving specified educational goals for all students and maximizing learning for individuals.

Many aspects of development relate to socialization, behavior, communication, and physical development. Students need the opportunity to work on these other areas of development as much as they need the opportunity to develop intellectually and academically. Students need to be able to interact appropriately with their peers and with adults. Behavioral considerations come into play both with emotional and social developments.

Given that there is evidence of the benefits of multiage classrooms with specific reference to these areas, it seems one of the added benefits of the educational model must be that

graduating students are not only better prepared academically, but they are also better equipped with opportunities to mature socially and emotionally. Behavioral problems may be more effectively addressed in the multiage classroom setting, affording students better opportunities for engagement that come with exposure to more mature students.

Chapter 5: Redefining the Teacher's Role to Promote Student-Centered Learning

Kyra Schugt felt called to be a teacher: She was ashamed that her home state of Minnesota had one of the largest achievement gaps in the country and wanted to do something about it (Regan, 2013, para. 7). She had some teaching experience under her belt as a preschool teacher and part-time art teacher. Hoping to get a teacher's license as quickly as possible, she enrolled in Teach for America's five-week summer program in Chicago.

At the Teach for America Institute, she trained to be an ESL teacher, but when she received her student teaching placement, it was in sixth-grade mathematics. She had hoped her final placement as a teacher would be in the ESL field for which she had received training, but that was not to be: She ended up at Bethune Elementary in Minneapolis, teaching fourth grade. Though she was excited to have a job, she soon realized she was hopelessly unprepared. "It was challenging," she commented. "It was the hardest position I had ever taken on. I consider myself to be a dedicated teacher and have a strong work ethic, but it was overwhelming."

Not only had Schugt ended up in a position for which she was not prepared; she was also teaching in one of the worst-performing schools in the state. She noted that Bethune was "considered a lemon school; students from the district that are kicked out of other public schools are sent to Bethune." About half the teachers at Bethune were newbies like Schugt, and they were paired with more experienced mentors. Though Bethune was designated a Priority School and received extra funding and had smaller classes (there were only 14 students in Schugt's fourth-grade classroom), teaching there was an ongoing struggle.

Schugt felt unequipped to deal with the significant behavioral issues that cropped up daily. When fights broke out in the classroom, she would try to intervene, but felt that her

involvement was endangering her. Finally, in consultation with the school management, Schugt decided to leave the school in the middle of the year. “I loved the staff and the students,” she said, but “it just wasn’t the right fit. It was hard to leave my students, but at the same time, it just felt like it was not in their best interest for me to stay” (Regan, 2013, para. 7).

Kyra Schugt’s story may be extreme, but her experiences are all too common: undertrained teachers with little to no classroom experience are sent to some of the most difficult schools in the country. In the end, not only the teachers but the students and the parents are left hurting.

Chapters 3 and 4 demonstrated the urgency of rethinking our pass-fail classroom model and preparing qualified, competent teachers to take a decisive role in the shift toward a student-centered learning environment. These chapters explored the benefits and challenges of mixed-age classrooms at length and proposed strategies for earning teacher buy-in. In this chapter, we will consider the pivotal role teachers play in students’ academic and social achievement and what should be done to help them make the most of their skills and time. We will consider questions such as these: What teacher qualifications are needed in a redesigned education system? How can we define teacher competence? What type of preparation do new teachers need if they are to succeed and help their students succeed? The most important issue is the relationship between teacher expertise and student success; we’ll focus on practicalities: How does one go about creating qualified and competent teachers?

Teachers Are Crucial to Educational Success

Teachers are held accountable for applying standards and transferring knowledge and skills to our students. This level of accountability may or may not seem fair. However, if teachers are not

adept at the transfer of knowledge and skills, then it hardly matters what sort of standards or curriculum an education system has developed.

Moreover, teachers are expected to play a role in assessing the strengths and weaknesses of individual students. Part of being an effective teacher is having some insight into students—knowing when they are excelling or are likely to excel, when they are likely to need help, what sort of help they are going to need, and how they can make the most of their natural abilities. Not only do teachers decide how to support students needing help, provide the support, and assess their progress, but they also play a major role in the overall assessment process when it comes to retention decisions. A lot of this decision-making and the outcome depends on teacher quality. If teachers are not properly qualified and trained to handle this responsibility, some students end up paying a very high price.

The simple reality is this: Not all teachers entering the classroom, whether at the elementary or secondary level, have adequate training and experience to meet raised expectations for student learning. Effective teachers are the best defense against the pitfalls of the pass-fail system because they can make up for much of what students lack in natural ability or capacity for knowledge or skills development. However, we must be clear about what teachers need to do in the classroom. We must establish all our expectations, not just the ones that have the weight of officialdom.

A strong teacher is an invaluable influence in the classroom, though the education system has yet to define what constitutes a strong teacher. Certainly, we have yet to figure out exactly how to produce strong teachers with any degree of consistency. The challenge is to think about the qualification standards for teachers—what should they be able to demonstrate regarding academic training, professional training, and professional experience? We should also consider

what constitutes teacher competency; that is, what practices should a teacher be able to implement in a classroom setting? What models for teaching should they be able to use? Considering these and related questions about quality teaching, we can then begin to identify the nature and causes of problems that are undermining teacher quality.

Defining Teacher Qualifications for a Redesigned Education System

A core problem within the teaching profession is that too few professionals have the knowledge, skills, or even basic training to determine the best pedagogical practices for many typical classroom scenarios. When considering how to make the greatest difference in education quality, several researchers have concentrated on the importance of professional development.

A survey conducted by Edwards et al. (2006) concentrated initially on ascertaining how regularly teachers used specific strategies or techniques to plan for and accommodate individual differences in the classroom. When interviewers asked how often candidates' strategies related to diversity, inclusion, differentiated instruction, accommodations, and modifications in the classroom, most respondents indicated that they rarely employ instructional strategies to differentiate instruction, use tiered assessments, differentiate lessons using major concepts and generalizations, or use instructional materials to promote diversity (Edwards et al., 2006).

Apparently, the focus was on the use of teaching materials rather than standard texts.

Teachers who participated in the survey by Edwards et al. (2006) used a relatively wide range of alternatives, including oral, visual, musical, and spatial materials; they also used cooperative and flexible grouping strategies and varying questions based on student readiness, interest, and learning styles. While these strategies go some way toward supporting students with atypical needs, the lack of focus on instructional strategies to differentiate instruction supports the idea that most teachers do not go far enough in their instructional approach. That is, they do

not use instructional strategies to target students with diverse needs effectively. Their cut-and-paste, plug-the-hole solution is to use a range of learning materials to try to make up the difference. Unfortunately, transferring knowledge and skills to students often falls by the wayside.

More than this, it appears that most teachers do not have an adequate range of experience before undertaking a formal teaching position. Edwards et al. (2006) touch on this issue at some length in their study, citing the educational and training background of survey respondents. Most respondents were female, Caucasian, and university-educated via a traditional undergraduate program. Most had no prior teaching experience, and only 40 percent of the respondents said they had any specific teacher training. These findings lead one to question whether our current education and teaching models for student teachers are sufficient to prepare them for their jobs as teachers. Perhaps teaching, in general, is not a field we need to redesign but one we need to *redefine* to support the needs of diverse students, targeting those at risk of retention or social promotion.

Reaffirming Teacher Hiring Standards

To identify qualified, appropriately trained teachers and ensure that they engage in continued education and training during their career requires that the education system adjust its hiring standards (National Council for Accreditation of Teacher Education, 2008). In fact, we may need to implement employment models that are different from the policies and models currently in place.

First, all teachers must be certified (Stronge, 2007). This would affect quite a significant number of existing teachers, of course. Second, teachers should be required to have experience and knowledge training in the subject or subjects they teach, especially at the high school level

(Stronge, 2007). In other words, any mathematics teacher must have a degree in the field. The basic argument is that teachers must demonstrate that they can teach students the knowledge and skills and that they can teach them in the context of a broader, enriched curriculum—one that truly affords students a rounded education, rather than an education that teaches to tests (National Council for Accreditation of Teacher Education, 2008).

School districts must ensure that the teachers they hire have viable classroom experience and that they have the relevant theoretical knowledge to effectively problem solve, addressing the needs of all students in the classroom (Stronge, 2007).

Candidates should demonstrate a certain level of classroom experience and specific teacher training beyond their basic qualifications before they are eligible for employment in the public school system. This standard will help ensure that teachers have the necessary practical experience as well as the academic background to problem-solve and troubleshoot the needs of specific students, especially those who are struggling to learn the required material.

All teachers should receive a certain level of core education and training in instructional practices, classroom management, curriculum management, and the like. Although all teachers need not major in education, it makes sense to require a certain number of educational credits at an undergraduate level. Any teacher or prospective teacher of kindergarten or first-grade students should have academic training in early childhood development or elementary education. Being able to understand and track the development of children between the ages of five and eight is critical to kindergarten and first-grade teachers, who are charged with helping to identify students who are struggling with some aspect of their development and are, therefore, at risk of being held back.

Teachers working in higher grades need to demonstrate a certain level of formal education in their specialty as well as in the art and science of education. But some degree of familiarity with child development and psychology is necessary for teachers who work with students in the upper grades to ensure that they are sufficiently alert to students whose academic struggles suggest they may need additional support. Teaching certification should be a requirement for public school teaching as it provides some means of assessing the individual teacher's commitment to their work and their preparedness to invest in the work they are doing.

Addressing the Issue of Teacher Competence

Beyond establishing specific teacher qualifications and training required for their specialties, we must also define teacher competence apart from any credentials they may have. We must address the issue of general teaching competence because even a considerable amount of academic and professional training does not ensure that teachers have the competence necessary to meet raised expectations for student learning.

Core Teacher Competencies

Let's examine the minimum competencies that K–12 teachers need in order to be successful:

- **Enthusiasm.** A teacher's level of enthusiasm about what they are teaching is arguably the single most important competency. If the students perceive that the teacher is bored, then boredom will ripple through the classroom. When researching his book *Making the Most of College*, Richard Light (2008) interviewed many college students, asking about their education, inspirations, and drive to study and continue learning. Light reported that, regardless of their social or cultural background, race, or discipline, the most common aspiration among students was that the class they were taking would help them progress;

that is, it would stretch them and change them in some way (2008). The teacher's challenge is to inspire students and help them achieve their aspirations.

- **Positive Attitude.** It is very important for teachers to be optimistic and foster a positive attitude within themselves and their students. The French philosopher Voltaire said, "the most courageous decision one makes each day is the decision to be in a good mood." I couldn't have stated it any better myself. Our educational system does not need teachers who are always looking at the glass as being half empty. What it needs are role models with positive attitudes who view obstacles as opportunities, not harbingers of doom and despair. All the effective teachers that I have known had this attribute, and it ultimately rubbed off on the rest of my classmates and me.

In order to display a positive attitude, teachers must listen to what they say to others and to their tone of voice. Teachers should display care, concern, and respect. Lastly, when the going gets tough, people with positive attitudes rise to the occasion and work on solving problems, not making them worse by their own pessimism.

- **Knowledgeable About the Subject.** A teacher must be sufficiently knowledgeable about his or her subject (Stronge, 2007). They should be able to analyze all the elements of a subject, to challenge its theories and fundamentals, and have a detailed awareness of all its implications, social biases, and possible uses. Education experts have often argued that all elementary teachers should have a proven, broad, and detailed knowledge of all the subjects they will be expected to teach, and that high school teachers should be experts in their field; they need a university-level specialization or a college major in the subject they teach.
- **Knowledgeable About the Curriculum.** Teachers must have a clear idea of how to

teach their subject in the most effective manner (Stronge, 2007). A teacher might be an expert in his or her field and convey positive energy in his or her instruction, but if a teacher starts teaching concepts relating to quantum physics before students have a good notion of what an atom is, students will inevitably be lost or bored, or they will quickly lose confidence in their abilities. By the time a teacher has reached an expert level in his or her field of study, he or she may well have forgotten the exact learning steps taken to get there, thus the subject curriculum will play a crucial guiding role. The curriculum outlines the structure and the layers of learning, which are developed along a defined course of time. Teachers must know exactly what they will be asking their students to study and when as well as which previous layer of knowledge is being built on.

- **Knowledgeable About Pedagogical Content.** Teachers must be knowledgeable about the methods they can and will use to convey their knowledge (Stronge, 2007). This is known as pedagogical content knowledge; that is, it is what binds subject knowledge. Pedagogical content knowledge might be viewed as a profound understanding, interpretation, and adaptation of the curriculum. It refers to the way the teacher organizes the topics, issues, and learning points and chooses the clearest analogies and metaphors in order to leave an impact on his or her students. Pedagogical content knowledge enables teachers to bridge the gaps in the students' knowledge in order to transmit their points clearly and profoundly and to foresee misunderstandings and problems that may arise. He or she must know how to address these issues with clarity and confidence and to make the right choices in his or her methods, according to the student's interests, situations, and backgrounds. For example, the teacher might use the analogy of a microscopic city in order to explain the functions and happenings within a cell, where the nucleus is

described as the city mayor or the decision maker, and the cell membrane as the city wall, which acts as a border and allows some things to leave, and others to enter. This analogy facilitates learning because it creates a conceptual image in the minds of the students, catalyzing comprehension and retention of the lesson.

- **A Good Classroom Manager.** Strong teachers are expected to be in control of the class, showing total confidence in their position. Good classroom management skills are crucial if successful learning is to take place in a classroom, which is full of social networks, peer pressure, competition, emotional complications, and varying degrees of confidence (Stronge, 2007). Children and teenagers need the freedom to make their own decisions, to follow their own interests and paths, and to develop their own personalities, but they also need limits. Good classroom management allows space for all these elements, creating a safe, stable, and stimulating environment.

Teachers will find that one of the most frustrating parts of teaching is classroom misbehavior. Misbehavior is easy to identify; however, finding solutions to deal with the causes effectively may be more difficult. Good classroom managers get to the root cause of problem behavior as soon as possible because misbehavior will continue, and may get worse, if not dealt with effectively (Moore, 2008). Teachers should have the ability to take a close look into students' behaviors to find the influential factors that are shaping their behavioral patterns. Teachers should be aware of the disciplinary standards of their school and apply them fairly and consistently (Stronge, 2007).

- **Ethical.** Teachers should be wholeheartedly committed to their code of ethics. Cochrane-Smith & Zeichner (2005) stress that this code may have been provided by the school, but it is important for teachers to develop their personal code of ethics and to hold themselves

accountable for adhering to their chosen standards. Teachers should be able to reflect this commitment in their day-to-day teaching. Ethical educators are expected to treat every student with the same respect, commitment, and engagement, embracing the opportunity to be practical models of virtue, to actively engage in the growth and learning of each individual student, and to be unlimited by external factors such as class and race.

Teachers must take responsibility for their own development—try new ideas, be imaginative, talk to other teachers, and stay up to date with the latest theories and research regarding education and effective teaching (Moore, 2008). If students seem to be making too little progress, teachers must swiftly adapt their method, change their teaching theory, and seek new ways to transmit the message. Continuous professional development should be seen as a personal investment in one's teaching career, enabling them to remain up to date with the latest teaching practices. For instance, technology can offer new and innovative ways to make classroom management easier, but it is up to the teacher to be cognizant of rapidly changing devices and systems.

In various aspects of our lives, a large gap seems to exist between the theory and the practice of an activity. Just as experienced drivers will tell learners that “you don't start learning how to drive until you've passed your test,” many experienced teachers have a similar attitude about the theories of teaching they studied in college versus the reality of standing in front of a class and actually *teaching*. This is one of the reasons that university teacher education programs have increased the number of times students spend performing fieldwork and engaging in the real classroom atmosphere early in their educational career. Newly hired teachers will undoubtedly need practical solutions to problems, and these are often learned more quickly and effectively through experience. Teachers should have a deep passion and respect for the progress

of their own profession, as much for themselves and the students as for the profession (Oliva, 2008).

Adapting Strategies for the Redesigned Classroom Model

In the redesigned classroom model envisioned in this book, teachers will need to go beyond core competencies and develop flexible teaching strategies to promote student success. For example, they should be able to gauge when it is appropriate to employ optional instructional strategies. Teachers should be able to facilitate cooperative learning, mastery learning, direct instruction, adaptive education, individualized instruction, peer tutoring, and curriculum-based assessments as instructional strategies whenever appropriate. In addition to identifying and implementing specific teaching strategies to support individual learning needs, teachers should be able to make sound judgments about strategies from the available range. The best teachers should recognize those measures that would be most effective at supporting students and inspiring them to be accountable for their education.

Because of the importance of home-to-school communications, teachers must be good communicators. They must be able to engage parents as well as students, and they should encourage parents to support their children while also addressing potentially sensitive issues with them. Positive social-communication and interpersonal skills are also important competencies. Teachers should be comfortable and competent at encouraging student responsibility and self-evaluation. Beginning as early as first grade, teachers should encourage students to undertake self-grading. Teachers shouldn't accept classwork until both teacher and student have agreed on its quality.

Traditional teachers seem primarily concerned with having students memorize the right answers, demonstrate proper grammar, and focus on correct form rather than devote time to

developing original ideas, either in classroom discussion or student writing. This is where traditional teaching fails the student because this approach simply encourages children to do what they need (and often *only* what they need) to survive in school. Too often, the unspoken goal of traditional teaching is simply to escape retention or social promotion by keeping grades above failing.

In-service teachers report being unhappy about the frequent carelessness, unkindness, and even cruelty of schoolchildren (Lynch, 2017). Therefore, knowing how to teach children skills for healthy relationships and conflict resolution is crucial to successful academic teaching as well as moral teaching. Part of the challenge of teaching healthy relationships lies in knowing how to create a different power dynamic within the classroom.

Effective Teachers as Alternatives to Retention and Social Promotion

Given their centrality to the student's learning experience and the management of education, it is obvious why effective teachers form the most important alternative to retention and social promotion policies. With qualified, competent teachers, most students exhibiting learning difficulties should nonetheless be able to achieve enough academic progress to warrant advancement to the next grade (Capper & Frattura, 2009).

Indeed, this conclusion suggests the need for some internal streaming within grade levels. For instance, students struggling with literacy or math skills could be streamed into a separate classroom either for a specific grade or for learning a specific subject. With this flexibility, the teacher could focus on addressing specific challenges experienced by the individual learner—essentially teaching to the student—to interpret standards and expectations for the student and to play to their strengths and target their weaker areas for development (Capper & Frattura, 2009).

The most successful attempts to teach for intelligence entail several basic assumptions. First, teachers must acknowledge that traditional methods of teaching are not always wrong (Kridel, 2010). Many high-achieving students thrive under the traditional approach to teaching, and many typical students or low-achieving students can improve under a more traditional teaching focus. The key is that traditional methods are inadequate for many students who are less achievement-driven (Ornstein & Levine, 2008). Because all students are expected to learn a specific curriculum, it is important that all students have the opportunity to be taught in a manner that enriches their learning. This applies to high achievers as well as to those who struggle academically. When faced with a less motivated student, however, a teacher must be able to develop a strategy that targets that student's needs (Capper & Frattura, 2009). Teachers must have a greater repertoire of methods.

More than this, best teaching practices should concentrate on building new theories of intelligence. We do not have space in this volume to elaborate on specific theories, but it is appropriate to acknowledge Howard Gardner's theory of multiple intelligences, Robert Sternberg's theory of successful intelligence, Daniel Goleman's theory of emotional intelligence, and Reuven Feuerstein's theory of structural cognitive modifiability (Kridel, 2010).

Second, the public education system should encourage teachers to regard the process of teaching as a strategic act of engagement, consistent with new theories of intelligence that identify active engagement of students' minds as a prerequisite for learning (Gouwens, 2009). By regarding teaching as a strategic act, teachers can design lessons and units that integrate a variety of strategies with targeted content so that each student develops the required skills (Capper & Frattura, 2009). In practical terms, we are talking about the act of differentiating instruction, which includes creating a personalized learning path for each student. This approach

is based on the notion that each student is different and has different learning needs. To help students master the materials, teachers must satisfy these needs. Doing so creates an increased workload for teachers but results in higher rates of academic achievement for students (Lynch, 2017).

Third, teachers must understand that it takes more than a review of theoretical information to change teaching practices. Continuing education for teachers is crucial, but it must include more than theoretical discussions (Kridel, 2010). Teachers need opportunities to learn and apply new teaching strategies in the classroom, with guidance to ensure that best practices are achieved. In other words, the education system should develop scenarios that provide teachers with regular practical training in addition to theory-based continuing education instruction.

Finally, teachers must also be aware that changing their teaching style or otherwise enhancing it will require, in most instances, that students also change their learning styles. Indeed, when teachers encounter students who are struggling academically, the need to change learning styles may be very immediate. It should, however, be recognized that changing learning styles can be extremely challenging for students. When teachers are making changes in their teaching, they should be aware that the change process has equally significant ramifications on the students' side of the desk (Gouwens, 2009). For instance, beginning from an abstract, theoretical point of view and using that to construct a framework or big picture may work in some classroom scenarios. On the other hand, starting with a hands-on classroom test of a new method may be the best approach as it will allow students to be involved in the subsequent evaluation.

As alternatives to retention and social promotion, effective teachers function as the most immediate asset available to the education system (Capper & Frattura, 2009). They are tasked with identifying at-risk students early and bringing the best education and teaching strategies to bear. The teacher's insight and response can help at-risk students to master the knowledge and skills needed to meet standards for graduation. To properly fill this role, teachers need regular training updates, access to research information, and access to networking opportunities.

Providing Teachers With Support

New teachers enter the job with a certain amount of naïvety (Moore, 2008). This is likely true of every profession but seems to have more noticeable effects on teachers. Compare the attitudes of a first-year teacher to those of a teacher with two or more decades on the job. The veteran teacher may lack enthusiasm, or if they have a shred of excitement left, they may have stopped voicing new ideas or looking for ways to innovate their classrooms and schools (Moore, 2008). Some of this is the unavoidable march of time that takes its toll on every career, no matter the field. But, in education, this lack of enthusiasm comes with weariness from working in a profession that has more than its share of adversity—and from several sources: students, parents, administrators, and the community at large.

Other factors also cause teachers to act as agents of the pass-fail system, some purposefully and others unconsciously—or at least out of their control. Every industry has the people who arrive accidentally and then end up resenting their career path. Teaching is no exception. Some teachers become jaded, and that impacts the effectiveness of their instruction. Some educators arrive on the job without ever having read a classic canonical work of literature (somehow) or without being able to identify the most famous pieces of world art in a lineup.

Some teachers bring their own political leanings into the classroom, whether right or left, religious or atheistic, and those actions influence or deter students and take away from the academic experience. All these things happen and impact the students who come through the classroom doors.

For teachers to lead students out of a pass-fail mentality into a vibrant thirst for knowledge, they must be convinced that there are people who believe in what they are selling. It's always been understood that children may not naturally cling to intellectual initiatives, but if enough adults in their lives do, it is possible to create positive results when it comes to academic engagement. It is a teacher's job to educate the students in the classroom beyond what a test says should be learned; however, without encouragement from outside forces, that job may seem nearly impossible.

Streamline Curriculum Standards

Imagine a construction worker who arrives for work only to find a new set of federal regulations governing his work. He already has certain rules in place that he follows, and the new regulations add another layer of direction. A few months later, he is handed a stricter set of rules from the state. While these rules do not go against the federal regulations, they require even more from him in his work. A few months down the road, he hears from his supervisor that the way things are run on the construction site will soon be changing ostensibly to better adapt to the needs of the clients. In addition to doing his work in a timely and accurate way, the construction worker must answer to three entities with slightly different expectations—four entities, if you count his clients. And so, the task of building something beautiful gets lost in a sea of standards.

Now take this scenario and apply it to teachers in today's classrooms. Under the guise of accountability and the idea (and law) behind the Every Student Succeeds Act (ESSA), teachers face regulations that are not simply suggestions: Noncompliance could impact their livelihood. Often, teaching standards that are well-intended cause a straitjacket situation for educators. Those who have a passion for teaching knowledge that lies outside what will be tested face a dilemma: Should they move forward with their calling and potentially risk a dip in test scores, or should they simply go with the outline placed in front of them to stay in the good graces of the pass-fail system? In the face of stringent standards, it is understandable that teacher morale may decline, and it makes sense that students' morale may also decline.

How can students take responsibility for their own education if their learning paths are dictated for them? How can teachers academically engage students when all that "matters" is the number on a standardized test or the ranking of a school? The idea that education must adapt to meet the needs of the lowest common denominator hurts all aspects of the learning process, even those considered the lowest common denominators. Teachers have a unique calling when it comes to engaging students and imparting a love for knowledge that fosters a spirit of intellectualism. Educators must satisfy the requirements of their jobs while reaching across the standards that divide them to pull in students who are already preprogrammed for the pass-fail system when they enter kindergarten classrooms.

Facilitate Teacher Retention

We have already established that if we are serious about moving from the pass-fail system, we must provide all students with high-quality, well-trained teachers. One of the easiest ways to do this is to significantly reduce teacher turnover, which we can accomplish by devising new ways

to retain existing teachers. Schools with high turnover rates spend money recruiting and training new teachers who are unprepared to start. A few senior teachers are expected to mentor a large number of new teachers, and they feel unable to meet these expectations. Under these circumstances, it is the children who suffer most.

Therefore, it is imperative that steps be taken to not only recruit and train new teachers, but also retain and reward the best teachers who currently serve in public schools all over the nation. Quick-fix solutions will not serve the purpose and are likely to do more harm than good in the long run. Although some of these quick-fix solutions may increase the supply of new teachers, they provide no guarantee that new teachers will stay in the profession (Martinez-Garcia & Slate, 2009).

Strategies to attract new teachers include (a) revamping the public education system so that teachers can effectively voice their opinion on policy matters, (b) recognizing teachers for their professional achievements, and (c) providing competitive financial compensation.

Four major factors must be addressed to reduce teacher turnover and retain them in the profession for a longer duration: compensation, working conditions, teacher education, and mentoring.

Compensation. Some studies suggest that, contrary to popular belief, salary is not the number one reason for teachers leaving the profession, although there is sufficient evidence to indicate that it plays a significant role. Those who teach in-demand subjects like mathematics and science are more likely to quit because they receive more attractive offers for opportunities outside the teaching profession. While salary is a major factor in attrition among young teachers

who are beginning their careers, it also acts as a deterrent to the retention of experienced and well-qualified teachers (Barnes, Crowe & Schaefer, 2007).

Working conditions. According to a national survey, teachers place a lot of importance on their working conditions and consider it a key factor in their decision to leave or continue in the teaching profession (Good & Brophy, 2007). Good working conditions include administrative support, availability of professional resources, freedom to express their opinions on matters related to their profession, and empowerment to influence policy in their schools.

Research studies reveal that the teachers who work in affluent and advantaged communities experience better working conditions than those who work in low-income communities (Barnes et al., 2007). Teachers who work with disadvantaged students experience less appealing working conditions, with limited administrative support, fewer textbooks and supplies, and larger student groups to handle. Thus, it follows that working conditions play an important role in a teacher's decision to continue or leave the teaching profession, and they contribute significantly to high teacher attrition rates.

Teacher education. It is evident from several research studies that better-prepared teachers stay in teaching for longer periods (Darling-Hammond, 2007). This is especially true for those who complete traditional teacher-education programs, as compared to those who are trained for a few weeks before being released into the student community.

However, not all alternative pathways are ineffective or poorly conceived. Some well-designed post-baccalaureate programs enable students to acquire the same high standards as those who graduate from traditional teacher-education colleges. They succeed by combining traditional coursework with a well-established fieldwork training experience.

Nevertheless, alternative routes that do not provide adequate training and mentoring to prospective teachers add to the “revolving door” syndrome that currently plagues the teaching profession. Almost two-thirds of the teachers who are well prepared in the methods of teaching and assessing students intend to continue in the profession, as opposed to less than one-third who are ill-prepared to teach (Lynch, 2017). Therefore, teacher preparation is vital to teacher retention.

Mentoring. Providing mentoring to new teachers helps teacher retention. Teacher mentoring programs pair new teachers with experienced colleagues. The mentor supports and encourages the new teacher in navigating and understanding the challenges of the first few years of teaching. Mentors also help their mentees hone their teaching skills and impart valuable lessons from their own teaching experiences.

There is ample evidence to suggest that such teacher induction programs bring down high teacher turnover rates. For example, school districts in North Carolina, Connecticut, New York, and California have drastically reduced teacher attrition rates among teachers by implementing induction programs as well as other retention methods (Lynch, 2017). Apart from simply retaining teachers, these teachers are also likely to become more confident of their teaching skills and competence in the long run, as experienced teachers are available to coach them and provide guidance in challenging situations. Yet another example is California’s Beginning Teacher Support and Assessment Program (BTSA), which reduced teacher attrition rates by almost two-thirds. This program, with the cooperation of local school districts and colleges, reduced attrition rates and reported a 96% retention rate for first-year teachers. Throughout five years, this program reduced attrition rates to a mere 9%, when compared with 37% of those new teachers who did not participate in such programs (Lynch, 2017).

Another excellent example of new teacher mentoring is Connecticut's Beginning Educator Support and Training (BEST) program, in which every new teacher is provided with a state-trained mentor for the first two years of teaching (Lynch, 2017). In all mentoring situations, it is important to ensure that the mentor has enough time to spend with the new teacher in order to make such mentoring strategies work.

Concluding Thoughts

At the beginning of this chapter, we looked at the story of Kyra Schugt, who experienced difficulties in her first year of teaching and eventually had to drop out. To conclude the chapter, let's look at another story, this one about a young teacher named Josie (her name has been changed).

Like Kyra Schugt, Josie felt called to teach. She had worked with children supervising museum visits and had enjoyed that experience so much she decided to become a teacher. After getting her master's in education, she completed two years of fieldwork and (unlike Kyra) felt prepared to teach. Like Kyra and many beginning teachers, Josie experienced difficulties in her first year of teaching.

She was working long hours—spending more than 12 hours a day at school, which didn't include the hours of preparation; and she began to get stressed out. She comments:

I was unfamiliar with the resources available to me and how to access them. The teacher who had my classroom before me left behind a wealth of books, guides, and programs, but the amount was overwhelming, and I had little direction. Instead, I planned everything from scratch. Everything I did was homemade, the night before (Moir, 2012, p. 34).

As she worked around the clock, including on weekends, she wondered if she could continue to do the job. She remembered that fully half of the new teachers quit before they complete five years of teaching, and she wondered whether she would be among them. Eventually, Josie used a search engine to seek help and discovered a resource called the New Teacher Center. She hooked up with a mentor, who advised her to keep one day of each weekend free. The mentor met with her weekly, and they worked together on ways to structure her days and allow the students' work to guide her instruction. Josie says:

Because of my mentor, I have been able to feel a sense of control, which has allowed my creativity to flourish. I know where to plug in great ideas, and I can come up with engaging ways to teach, now that I have a better sense of what to be teaching! I have someone to go to for guidance. I don't feel alone anymore. (Moir, 2012, p. 34)

The stories of Kyra and Josie indicate that anyone teaching children in the public education setting should have the appropriate academic background and practical training to fulfill their role. Their qualifications and training should align with their job experience. Individuals working as reading specialists must have the academic knowledge and specific training in literacy. Anyone serving in the capacity of a special educator should have a similar level of knowledge and training in their area. School counselors, too, should have a standard of knowledge and training and be able to demonstrate practical readiness to problem solve and apply support solutions specific to individual students, rather than relying on cookie-cutter models. Josie's story shows conclusively that mentors can be enormously influential for teachers at the beginnings of their careers.

Of course, it is the school districts and the schools themselves that must ultimately redefine the teacher's role while promoting a student-centered learning environment.

Enforcement of standards for hiring and qualifications is not enough; teachers must receive vital support if they are to perform the critical tasks of educating students and continuing in the profession for the long term. The benefits of revitalizing the teacher's role will be immense, potentially reducing retention and social promotion, for starters, and ultimately producing better-educated, well-rounded graduates of the public education system.

Chapter 6: Using Multiple Assessments to Determine True Learning

Ankur Singh, currently a student at the University of Missouri–Columbia, took an English class in his junior year of high school that influenced him profoundly. “It was the only class I’ve ever taken where the lessons I learned will carry with me for the rest of my life, and after completion, I felt ten times smarter,” he says (Strauss, 2012). The teacher focused on the development of the students’ critical-thinking skills and ensured that they were able to analyze poems and essays. He was keen to allow each student to form his or her opinions.

Because Singh loved the junior-year English class so much, he expected the college-prep AP English course he enrolled in during his senior year would be equally enjoyable. However, it turned out to be an awful experience. The critical-thinking skills he had honed the previous year were of no use in the new class; instead, the classes focused solely on preparing them for the inevitable exam. “It frustrated me to no avail, and I ended up doing very poor in AP English,” Singh says (Strauss, 2012). “And I found the same thing in all of my other AP classes, which seemed more focused on college preparation and standardized tests rather than genuine learning” (Strauss, 2012). Singh began to wonder what the real purpose of education was. He noted:

All around me were students studying diligently, stressing out about their grades, homework, the ACT, college essays, AP tests. And here I was not caring about any of those things. Were there no students in this school who wanted anything more than just a college degree and a job? (Strauss, 2012)

He began to feel lonely, and then angry. Finally, during an AP French exam, he used the time to write a furious letter to the College Board, expressing his misgivings. Though he expected to be reprimanded by his French teacher for writing a letter rather than taking the exam, she listened sympathetically and told him that she felt the same frustrations with the system. Though she had

wanted to take the French students on field trips to a French bakery or watch a French film, she was forced to teach to the test. “Maybe if the students themselves spoke out against it,” she said, “it could all change” (Strauss, 2012).

As Ankur Singh’s story demonstrates, the current model of assessments can lead to frustration in students and teachers alike. In the previous chapter, we outlined approaches that educational administrators might use to manage the hiring of qualified teachers and use them to promote student success in the classroom. Now, we will shift our attention to assessment measures. Many states and school districts rely on large-scale assessments when making decisions about student grade progression. Despite the evidence that such assessments are not always an accurate reflection of a student’s academic abilities and despite warnings from most testing experts that high stakes retention or promotion decisions should never be made by a single assessment, states and school districts continue to rely on these assessments.

In this chapter, we will look at recommendations from experts who suggest that using multiple sources of information to assess a student’s academic abilities and potential is the most effective way of assessing knowledge.

Current State of Assessments

Let’s begin with a review of the current status of assessments, identifying exactly what types of assessments are currently used and their strengths and weaknesses. Numerous types of assessments are employed to assess knowledge, skills, and basic intelligence. Often, though, the advertised purpose of a test is not consistent with its capacity for assessment. The Intelligence Quotient or IQ test, for instance, is supposed to gauge individual intelligence. Proponents of the IQ test portray it as a viable model for gauging what someone’s academic or even professional potential might be, and this is widely accepted. People generally believe that a high IQ score is a

confirmation that an individual will succeed academically and professionally. The reality, however, is different. The IQ test is not an absolute gauge of a person's intelligence (Laitsch, 2006). At best, it assesses a specific kind of intelligence—a problem-solving ability or the ability to recognize patterns in problems— with a reasonable degree of accuracy.

Like the IQ test, many other standardized assessments set out to gauge a particular knowledge or skill. For instance, SATs and ACTs gauge individual capacity for verbal and mathematical reasoning (McNeil, 2005). At least, that is how most of us view them. However, while the SATs and ACTs assess analytical and comprehension skills, they are not necessarily effective. As most seasoned educators are aware, the format of these tests and their reliance on multiple-choice responses mean that there are only a few ways students can express their mastery of the tested materials. Many students with excellent academic potential may not score well on these tests (Laitsch, 2006). Others who have a more limited aptitude may score well and find themselves in academic settings that are too demanding for their ability level.

Since different types of abilities and many different skills play a role in academic success, the focus on analytical skills measured through multiple-choice questions and the focus on math and reading comprehension is inherently limiting (Center for Public Education, 2006). These assessments overlook written and oral communication skills as well as basic reasoning and argumentation skills because students are limited in the scope of their answers. However, finding viable alternatives is not easy.

Use of High-Stakes Tests for Retention Decisions

Before we look at alternative testing strategies, we should consider how our current education system uses tests in retention and social promotion decisions. The use of high-stakes tests in retention decisions has added another layer of controversy to the debate over retention.

This policy begs the question: To what extent has research confirmed test-based grade retention as a particularly problematic approach to education? Teachers initiate most retention decisions, but since the late-1990s, several states (e.g., Florida, Georgia, Louisiana, North Carolina, Texas) and municipalities (e.g., Chicago, New York City) have added promotional checkpoints by requiring students to pass a standardized test before they can move on to the next grade (Marsh, Gershwin, Kirby, & Xia, 2009). According to the Educational Commission of the States, as of 2005, 12 states had created test-based retention policies (2005). Since 2005, Arkansas, Oklahoma, and Tennessee have added similar policies (Educational Commission of the States, 2011).

Common Core standards are heavily reliant on assessments to achieve their aims. As most educators and parents are already aware, the main objective of the Common Core standards is to provide “a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them” (Common Core State Standards Initiative, n.d.). The Common Core standards seek to have every child learn at the same pace, with teachers and parents participating in the process of standardizing the learning experience. According to these standards, for instance, kindergarteners must learn one set of things to advance to first grade; first graders must learn another set of things, and so on, all the way through the system (Common Core State Standards Initiative, n.d.).

Because they are intended to be used nationwide, Common Core standards lead to assessments that are as standardized as possible. Students must submit to testing with even more regularity than they have in the past and must demonstrate, in these test scenarios, that they have acquired all the knowledge and skill that the Core standards demands of them.

Numerous factors appear to influence the validity of assessments, including the opportunities that students have had to learn the content of the test, whether the test measures the intended constructs, whether the test leads to the intended educational goals, whether the scores are reflective of high-quality instruction, and whether the test has afforded students sufficient opportunities to demonstrate their knowledge, skills, and achievements (Popham, 2010).

The use of tests in making retention decisions is complicated by the disproportional impact that test-based retention policies have on historically disadvantaged groups, including ethnic minority groups, racial minority groups, and English language learners. Numerous studies indicate that large achievement gaps exist between the majority and protected student populations (Baker, Griffin, & Choi, 2008). These gaps point to the possibility that students of protected populations are in jeopardy for displaying disproportionately low passing rates on tests used to make retention decisions.

Concerns About Testing Validity

For obvious reasons, the first and most significant concern for the use of standardized tests is that they are not consistent with the standards for fair and appropriate testing. Of course, educators must first define the testing standards and demonstrate them to be relevant. That is, the proposed assessments should meet the standards for fair and appropriate testing as defined by the National Research Council (NRC) report, which states that measurement “validity refers to the extent to which evidence supports a proposed interpretation and use of test scores for a particular purpose” (Heubert & Hauser, 1999, p. 55).

For instance, a measurement validity of the reading section of the SAT I standard test would be assessed as having a reasonable validity for assessment of an individual’s reading comprehension skills, knowledge of grammar rules, and ability to make inferences from texts.

The use of scores from this test to determine an individual's preparedness for entry into a particular college program would also be reasonably good. The concept of appropriate testing usually overlaps validity as outlined in the NRC report and supported by the findings of other organizations (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 2014).

In the K–12 setting, high-stakes decisions should be dependent upon evidence that the student has the educational experience and opportunity to acquire relevant knowledge and skill. If students have not had sufficient opportunity to acquire desired skills in an educational context, they may not meet the criteria for grade promotion or graduation (Lynch, 2017). At the same time, it is hardly fair for students to be held accountable for the deficit in their learning. At what point do we say that this portion of education is the responsibility of the schools, of the system, and the stakeholders, not just the individual student?

Problems Associated with Test-Based Retention Practices

Today, retention occurs almost exclusively based on test results, often without due consideration of the fairness or appropriateness of the test itself. Some researchers have argued that test-based retention may have a net benefit to society (Hout & Elliot, 2011; Dennis et al., 2012).

Contradictory as it might seem given the preceding discussion, proposed benefits for applying test-based retention include the following: (a) create a more homogeneous class environment that can facilitate instruction, (b) provide motivation for all students to obtain the requisite knowledge, and (c) provide motivation for all teachers and school officials to deliver adequate learning opportunities for all students (Hout & Elliot, 2011; Dennis et al., 2012).

Statistically, the aggregated benefit across all individuals is also significant and outweighs the costs because most students can thrive based on their test scores. As outlined in

Chapter 2, the costs of test-based retention are numerous (Levin, 2009). They include loss of income and lost tax revenues, increased reliance on government-subsidized health coverage by those who are impacted by these policies, increased criminal activity, higher reliance on welfare benefits, and added instructional resources required for each additional year of schooling generated by the retention.

From a purely economic perspective, the costs associated with test-based retention rival the resulting benefits of these policies to promoted students. Although there has yet to be a formal weighing of costs and benefits of retention policies, the overall net economic benefits of test-based retention policies appear to be negligible (Huddleston, 2014).

The economic costs generate an educational disadvantage large enough to have a dramatic adverse impact on the lives of the retained students. We must also factor in ethical issues: Testing heavily infringes on the long-term outlook for low-performing students, constituting a significant violation of fairness. Even if a net economic benefit resulted from a test-based retention policy for society, the acceptance of these benefits demands the educational disenfranchisement of so many minority and poor students as to be unconscionable.

From a purely assessment-based perspective, test-based retention is also problematic in terms of how it assesses and how these assessments measure up against the basic parameters of fairness (Penfield, 2010). Most forms of test-based retention, when examined against criteria for fair and valid testing, fall short.

The first problem is that of measurement validity. Test-based retention leads to an evaluation of each specific test used in retention decisions (Penfield, 2010). We are unable to assess validity in a general way because scores are not rigorously applied when retention decisions are made. A school may retain a child who achieves a score within a certain range,

based on the determination of relevant education professionals. A different group of education professionals may promote another child who has the same score or even a lower score. There's little evidence of consistency in scoring.

Since grade retention is an educational placement, the standards for testing should result in educational placements that are educationally beneficial to the student (Penfield, 2010). Indeed, if retention is to be a test-based decision, educators should evaluate grade retention *per se* to determine whether it is ever “educationally beneficial.”

Of course, retention does have a certain intuitive appeal, which we should not entirely discount. Students who have not adequately mastered certain material should be offered a second attempt to master it. They should undertake that attempt before they progress to the next grade, where there will be new demands to contend with and where the material will become more difficult. However, there are limitations to this rationale. Among other things, it clearly ignores serious mediating issues. Grade retention inevitably reestablishes students in the same learning environment in which they have had little success in their first attempt at knowledge and skills mastery. Thus, retention becomes not only pointless but often takes on the character of punishment. As shown earlier, the embarrassing stigma associated with grade retention is intense; and most students feel considerable anxiety concerning the retention experience (Babcock & Bedard, 2011). These negative attributes make it unlikely that retention will engender any real educational benefits.

Some studies demonstrate that retention puts most students in a worse position in terms of academic and cognitive growth than they would be if they had not been retained, meaning that the placement has no educational benefits at all and thus that it is contrary to standards for test-based placements (Fruehwirth, et al., 2016). When tests are used to make retention decisions,

retained students are likely to receive a low-quality educational placement because many of the causes of their poor test performance will simply be repeated. Most tests used in retention decisions produce scores that are partly attributable to low-quality instruction and unintended linguistic and cultural factors (Babcock & Bedard, 2011). Whenever this is the case, students who are already at a socioeconomic and cultural disadvantage find themselves educationally disenfranchised for the second time.

This problem also begs the question of whether graded learning structures are viable at all. With neither retention nor social promotion offering a positive educational placement for struggling students, the structure of the system itself comes into question.

Finding Multiple Ways to Assess K–12 Students

Assessments turn living, breathing students into “machines” who must be programmed to spit out the right answers at the right time to further the value of American education. While educators never abandoned the discussion about standards and assessment, and likely never will, only recently has the general public awakened abruptly and passionately regarding what K–12 students should be learning (Lynch, 2017). Public interest has set the stage for a thorough reimagining of assessments in U.S. classrooms using multiple measures to determine a student’s true academic abilities. It seems reasonable to expect that revamping the use of assessment will also lower social promotion and retention rates exponentially. So where do we start?

Focus on How Students Obtain Knowledge

Assessments of the future will need to ask more questions about the **how** of knowledge and not just focus on the **what** (Lynch, 2017). In the digital age, more information is available than can

ever possibly be processed, and the way students vet this data is incredibly important. While the Internet has opened up the world in amazing and beautiful ways, it has also skewed the way information is obtained (Bennett, 2015). Instant knowledge, or perceived knowledge, is available as soon as children are old enough to type in a computer password or swipe the lock screen of a tablet or smartphone. The Internet has eliminated the information exploration process in many ways, with search engine providers racing to spoon-feed people the exact answers they need with the fastest speed.

For those of us who grew up in the pre-Internet days, the idea of simply Googling the answer for our homework is mind-boggling. If computers were used in classrooms pre-1995 or so, they had specific educational programs preloaded. There was no wandering from one website to the next, and even academic databases were clunky and still took significant time to navigate. Half the learning battle was to find the right information after digging through a lot of the wrong material first. The payoff, of course, was finding that perfect reference or piece of information that fit the assignment. The skills we developed finding that nugget of knowledge were retained for the next search. Those of us who went on to undergraduate, graduate, and post-graduate programs continued to apply those search-and-find tactics to reach our goals. We had built the foundation early in our K–12 learning careers and knew how to find and implement reliable knowledge.

Now fast forward to a baby born today. This child will likely be the star of an entire Facebook photo album before she is even one day old. Her milestone moments of early childhood will be plastered on the Facebook, Twitter, and Instagram feeds of her doting parents, and by the time she is a toddler, there will be at least a few smartphone or tablet apps that belong to her on her parents' devices. Her life will be an open book in many respects, chronicled for her

own parents' posterity but also shared with a world of close friends and not-so-close acquaintances. By the time she starts kindergarten, she will have spent thousands of hours staring at screens—whether they be a computer, tablet, television, or otherwise. Technology won't be exciting or new but will be a normal part of her life (Bennett, 2015).

There is no way to take away the technology experiences that children have before they even enter our public K–12 classrooms, and we shouldn't want to do that anyway. This technology explosion changes the way this generation of K–12 students approach the pursuit of knowledge though, and it is vastly different from previous ones. Perhaps just as important as the facts our students learn is making sure they are confident and correctly obtaining that knowledge (Bennett, 2015). Assessments are one way to check up on this goal.

There is no longer one set of books that answer a particular set of questions, and even materials as traditional as U.S. history books are coming under scrutiny for being too one-dimensional. Simply disallowing alternative histories in classrooms does not cut off student access to them; it just directs them to unauthorized versions that can be created, and posted online, by anyone. This is true for any topic. Students have all the information they will ever need at the tips of their fingers, and they will grow up never knowing what life was like pre-Internet. They don't need to go to the library or check a few sources before determining the true answer: They only need a smartphone. This presents a slippery slope for educators who have been told to embrace the very technology that often misinforms their students. Not all free information, particularly online, is created equal. More than ever, educators need to show students how to find the answers on their own (Torff, 2018).

It is impossible to sort out the good, accurate websites from the bad ones, so students need to be able to think for themselves when it comes to misinformation and information

overload. In other words, we need to be educating our learners about how to obtain the **best** knowledge from the pool of available options (Torff, 2018). The methodology will vary, of course, but the key features of the material should include the following features:

- **An online vetting process.** How can students know if what they are reading is reliable? Students should be taught how to consider the source through a short list of reliable websites and publications. Government publications, trusted nonprofits, and some newspapers should make this list. Since some editorial content is now going the way of paid content, otherwise known as native advertising, sites with an interest in making money (including some “news” publications) should be examined with closely. As advertising online continues to evolve, so too should the way we examine the content we consume, and students should be a part of that process. Students should know how to spot unbiased, reliable information and separate it from misleading content. That skill starts with vetting the source and looking for clues in the content that point to reliability, instead of simply taking what is presented at face value (Torff, 2018).
- **Instruction in the basics.** I’m not going to take this moment to lament the decline in the need for brick-and-mortar libraries. It is what it is. While the need to access the actual books on the shelves may be on its way out, the information housed in our school, university, and public libraries is still an incredibly important cornerstone of learning, particularly when students are searching for information. Our students should know the difference is between a Wikipedia page online and a peer-reviewed article on the same topic. They should understand reference books and where to find the information contained within them, whether that is in a physical library shelf or on a website. In other words, when our students are at the beginning stages of researching something, they

should not start with a Google search; they should go a little deeper to find the best sources on any topic, and teachers should instruct them on how to do it (Torff, 2018).

- **Investigating multiple sources.** The instant gratification of the Internet has provided a shortcut for today's students when it comes to researching and obtaining knowledge. Answers are quite literally right at the tips of their fingers and easy to insert in any assignment. Students should question what they read, however, even if the sources seem reliable. A benefit of the Internet is that it is easier to find more than one side to every story, which means that today's students should be handing in excellent work that contains more than one source of information. Even the "facts" surrounding our Founding Fathers and other pieces of American history are scrutinized more closely, in part because of the vast reach of the Internet, and students should be encouraged to seek out more than one viewpoint when it comes to the learning process, and they should use that information to formulate a well-rounded response to any assignment (Torff, 2018).
- **An understanding of Internet-related ethics.** Today's students do not need to write answers on the insides of their hands or pay another student to write their research papers to cheat academically. In many cases, all they need is a smartphone, a search engine, and sometimes a credit card. With so much information available at the touch of a button, student understanding of what is cheating, what is shady, and what is perfectly acceptable when it comes to finding answers is a little bit murky. A Common Sense Media survey discovered that at least 35 percent of students had cheated on assignments via cell phone (Common Sense Media, 2009) though many of those respondents were unaware that what they had done was ethically questionable. Students may cheat to find answers by texting answers to other students, storing notes on their cell phones, rewriting information

found online that requires no further research, using virtual assistant programs to find answers, and flat-out paying online companies to write papers or complete assignments for them. In a lot of cases, it may not even occur to the students that they are doing anything unethical. To them, they are just finding the answers to the questions most efficiently. This reliance on the quickest, most accessible information is dangerous to the academic futures of K–12 students though, and educators should fight against it through policy, discussion, and assessments. This academic due diligence will require that students unlearn the information-gathering tactics that they have practiced from birth (Torff, 2018).

Assess the Information-Gathering Process

But then how do we assess this information-gathering process? It is one thing for teachers to align their lesson plans with these methods, but it is another thing to determine which students have mastered them. I would suggest a separate assessment that focuses solely on the process of information-gathering—whether it is included in assessments that are already written or given as a test at certain benchmarks in students K–12 careers. As it stands, fourth and eighth grades seem to be popular time frames for other assessments, but I’d suggest that midway through the elementary career (say, third grade) and then again at the end of sixth grade would be appropriate for this information-gathering assessment. A similar assessment could be administered after ninth grade and in the second semester of 12th grade.

The very best way to test students’ information-gathering skill is by having individually written tests per school, per district, or at the very least per state. These tests should not be sent off to a large-scale scoring publisher but should be graded individually by each teacher. Adding another requirement to a teacher’s agenda may come with its own set of groans, but I’d argue

that these information-gathering skills are so integral to creating lifelong learners who can think for themselves that this needs to be part of the assessment process.

Instead of an actual “test,” these skills could also be assessed as part of a class project. Research papers and other long-term projects are certainly not new to a teacher’s agenda, but the “assessment” side of this information gathering would have specific requirements for the intended outcomes as listed above. Guiding the way our students obtain knowledge will impact every other fact or piece of knowledge and needs to be a required piece of K–12 learning—and then tested (Bennett, 2015).

Emphasize Critical-Thinking Options

Emphasis on critical thinking goes hand in hand with learning how to obtain knowledge but takes it a step further. Most educators agree that applied knowledge is crucial to the learning process, so standardized tests need to do better when measuring it. Every child needs to be able to articulate what he or she knows, not just repeat it. Instead of simply finding the answer, students need to explain their answers (Torff, 2018).

So, what exactly is critical thinking and how does it play into our K–12 classrooms? Do educators understand the concept? According to Richard Paul in a piece for CriticalThinking.org (Paul, 2004), most educators do not understand what critical thinking entails and are therefore unable to teach it to their students. He says that the best definition lies in his book *Critical Thinking: Tools for Taking Charge of Your Learning and Your Life* (Paul & Elder, 2012) and includes these points:

- analyzing and assessing reasoning
- identifying strengths and weaknesses in thinking
- identifying obstacles to rational thought

- dealing with egocentrism and sociocentrism
- developing strategies that enable one to apply critical thinking to everyday life (I'd argue this is the most vital of all.)
- understanding the stages of one's development as a thinker
- understanding the foundations of ethical reasoning
- detecting bias and propaganda in the national and international news
- conceptualizing the human mind as an instrument of intellectual work
- active and cooperative learning
- the art of asking essential questions
- scientific thinking
- close reading and substantive writing
- and grasping the logic of a discipline.

Paul explains, "Critical thinking is the art of thinking about thinking with a view to improving it. Critical thinkers seek to improve thinking, in three interrelated phases. They analyze thinking. They assess thinking. And they up-grade thinking (as a result)" (Paul & Elder, 2012, p. 56). Paul speaks specifically about the lack of critical thinking in college classrooms and how some college faculty are unable to teach it adequately (and sometimes to even identify that there is a problem). But as we all know, the students who show up in college classrooms are products of our K–12 classrooms. Young adulthood is too late to teach the basic tenets of critical thinking. For one thing, by that age, students have already figured out all their academic shortcuts (Torff, 2018). Many have figured out the academic system and how to rig it in their

favor, which works to their advantage in an assessment culture that relies on final answers as truths without much concern for how the student arrives at the answer.

By college age, students have mastered the K–12 structure that earned them a high school diploma and are eager to apply those habits in higher education. So, asking college faculty not just to use critical-thinking activities, but to teach many of their students to use critical-thinking principles for the first time, is a stretch. Asking those college graduates to apply those critical-thinking points in their careers is even more laughable. The skills need to be taught and properly assessed long before that first college course and well before college graduates are in the workforce (Torff, 2018).

A side benefit of including critical-thinking options in the curriculum is that it improves writing and communication skills in the process. Feedback from leading U.S. companies frequently mentions that they can't seem to find employees with proficient writing skills (Torff, 2018). By ensuring that more critical-thinking and explanation standards are written into assessments, teachers will be guaranteeing that students can explain what they know both in the classroom and out in real life.

Change the Traditional Teacher-Student Model

One of the most persistent barriers to changing our K–12 classrooms into critical-thinking hubs is the traditional teacher-student model. Historically, classroom learning has been a one-way conversation where students were talked “at” and not “with” (Tyack & Cuban, 1995). Students have been expected to sit politely, behave, and do the work asked of them without much in the way of questions in return. A student who questions the presented material may be viewed as disruptive or even mean-spirited. While there are certainly students who act out in class simply to garner attention or avoid their schoolwork, this traditional set-up has caused students to be less

active participants in their educational experience. It has taken learning empowerment away from students who are conditioned to simply believe what they are told, complete the work, and keep their heads down.

There is a push in education to break free of this mold, and today's classrooms are much more interactive than they were even a decade ago. Still, the "teacher knows best" mentality lingers and gets in the way of students taking an active role in what they are learning and how they are learning it. When you factor in high-stakes testing and its implications for the careers of teachers, funneling vast amounts of information in that one-way conversation style may seem like the only viable approach for teachers (Wright, 2008). I get it—I was a public school teacher for many years in a state that suffers from low test scores year after year. For many teachers, there is a dichotomy between the way that they want to teach and the way that they are forced to teach, and much of that is due to unreasonable accountability standards that include student performance on standardized tests (Popham, 2010).

That dichotomy between teaching philosophy and practice goes a long way toward explaining why the assessments need to be changed to make room for more emphasis on critical thinking; as the testing changes, so too will the classrooms. We should reach a point where teachers are no longer afraid to stop and take questions on a certain topic or to entertain a counter view on a topic from a student for the sake of classroom discussion because they won't fear losing time on the test-related material (Wright, 2008). Students who not only master material but evaluate it for themselves and understand how it will impact their lives should pass any assessment with flying colors.

This is also where our earlier rationale for teaching critical thinking dovetails with the need to broaden our assessments of performance (Bennett, 2015). As an educational community,

we need to decide that critical-thinking components are vital to the learning process and that taking the time to include them in our testing process does more for our students than simply filling in a multiple-choice bubble. Teaching our students that it is okay to question and doubt and then taking time to agree with their answers will go a long way toward developing future generations of critical thinkers, and it's something that needs a higher priority in our assessments.

So, what should critical-thinking options look like in assessments (Torff, 2018)? The Common Core Standards adopted by more than 40 states already emphasize more of a hands-on approach to classroom learning, and those values are reflected in accompanying tests. A good example of a critical-thinking exercise for a third grader would be to not simply have students rehash the plot of a story but to have them draft an email that one character would likely to write to another.

In this example, students would be taking the knowledge presented and then extending it to include their thoughts on the story. In the reading portion of assessments, activities such as this should be asked of the test-takers. Comprehension is still important, of course, but in addition to understanding the basics of what they read should be proof that students truly understand the material—that they can not only regurgitate information but can also interpret it beyond what is on the page.

In areas such as math, critical thinking is very important (Torff, 2018). Numbers on a page tend to be somewhat removed from the human experience, but critical-thinking exercises should breathe new life into those numbers as teachers find ways to incorporate concepts into daily life. With this strategy, a student will not just show her work but should be able to explain why a certain solution was reached and what math concept it demonstrates. There also needs to

be more cohesion between different areas of math to show that it is not as cut and dry as it seems and that all the concepts are interrelated. Our math assessments need to reflect more of the process of reaching math goals and have less emphasis on the final answer (Bennett, 2015).

Language arts and math are just two areas of assessment, of course, and the critical-thinking element needs to spill over into all other subjects as well (Torff, 2018). Traditionally, the assessment process has been heavy on answers and light on the processes to get there. That is starting to change toward a fuller grasp of critical-thinking processes (Torff, 2018), and that change is necessary for the improvement of K–12 classrooms and the next generation of adults.

Implement Higher Levels of Digital Access

All facets of education are being impacted by the rapid evolution of technology, and assessments are not immune. Not only should educators be able to tap into digital resources for assessment preparation, but students should be able to take assessments using the technology that makes them most comfortable. In other words, we need to ditch the Scantron forms and No. 2 pencils and give our kids access to the right technology to make them the most comfortable with the tests they are taking and to streamline the process for scorers.

I do think that there is value to the handwritten word, but I also know that this generation of K–12 students will not be handing in business reports or notes scribbled with pencil on college-ruled paper. Our kids should be typing early and using the wide array of technology at their fingertips for the learning process. Assessments should also reflect that shift (O’Leary, Darina, Anastasios, & Vasiliki, 2018).

To those outside the educational community, the idea that students should be able to take tests using computers and other pieces of technology that make them comfortable is a no-brainer. Within the educational community, there is always some fret when it comes to anything related

to technology or change. For decades, classroom assessments have always been done in quiet classrooms with individual test packets and students using sharpened pencils to fill in bubbles on scan sheets (Bennett, 2015). In recent years, some sections that allow free thought outside multiple-choice responses have been added, but most tests use virtually the same boring layout as they did when many of us took standardized tests as K–12 students.

Changing how these tests are delivered is a scary proposition for many lawmakers and administrators and certainly one that does not come without a hefty price tag. Considering the consortium (albeit a small one) of educators who are leery when it comes to any technology takeovers in classrooms (O’Leary et al, 2018), it isn’t difficult to see why there is so much hand-wringing about updating the way assessments are delivered. I would challenge our educational community, from classroom teachers to those sitting on national education committees, to move beyond these fears and find an economic way to make the technology of assessments possible.

Consider the rapidly advancing technology of just the past few years. The rapid integration of smartphone culture into the Western world took only a few years, and with the dawn of smartwatches and augmented reality devices, it seems that two years from now, our technology norms will have changed once again. Think ahead to the year 2027 when this year’s kindergartners are crossing the stage to receive their high school diplomas. What will the technology look like then? Will we, as educators, have done everything within our power to get them ready to use it?

Integrating higher levels of technology in assessments, whether state-mandated versions or in-classroom tests, will have two positive results (O’Leary et al., 2018). The first is that they will reinforce students’ use of technology by asking them to implement it as they take the tests. The second is that assessments will make more sense in the grand scheme of classroom learning,

which is already much more interactive than the traditional test-taking process typically used in standardized assessments. Students who take tests on computers or tablets will be more comfortable with the material at hand, and it will feel like more of an integrated process (O’Leary et al., 2018). To help the U.S. remain a world leader when it comes to the fast pace of technology, we as educators need to insist that technology be part of not only the teaching process but also the assessment policy.

Customize Assessments Based on Cultural and Learning Differences

Not all students are natural-born test takers. Any educator who has spent even a small amount of time in classrooms knows this—much in the same way that different students have different learning styles. Most often, teachers can account for these differences in their classrooms based on the students they serve. An inner-city math teacher, for example, could tweak his tests with word problems that best relate to the students entering his classroom and not use obscure references that make the material seem even more disconnected from the students’ everyday life. A science teacher in an elite prep school could do the same, using references that strike a chord with the students who walk through the door, thereby, grounding the material.

Statewide assessments don’t allow that level of customization; instead, they are created for one set of students and then applied to the rest. A student who feels isolated from the material in front of her will not be as successful in answering the questions, plain and simple. English as a second language learners, for example, may not perform as well on assessment tests as their peers. Standardized assessments are designed with many assumptions about the students who will take the tests—much to the detriment of some students. For assessments to be effective, the student answering the questions should always be considered (Wright, 2008).

At a minimum, the following types of cultural differences should be considered when assessments are created:

- **Socioeconomic status.** Students from homes where one or both parents have a college education tend to have more advanced linguistic capabilities, and accomplishing school tasks comes more easily than for students from economically disadvantaged homes. This is not to say that test questions should be easier or in any way “dumbed down” based on the income of a family in question, but assessments should be carefully written with these factors in mind (Suski, 2009). Perhaps there is a reason beyond basic comprehension that White students from middle and upper-class homes tend to perform better on standardized tests. Perhaps it is not the actual material that they have more effectively mastered, but the actual tests that have put them at an advantage. If every student had the chance to take a test that played on his socio-economic strengths and avoided pitfalls that made that student feel isolated from the material, perhaps we would see a drastic change in test scores. Considering the socioeconomic status of students is an essential part of the assessment process that needs to be addressed for all students to succeed.
- **Language.** The language spoken at home should play into the type of assessment students receive (Suski, 2009). Students who speak English as a second language, even fluently, should have the option to take their assessments in whatever language makes them the most comfortable. There should never be a debate about whether a student knows “enough” of the English language to perform well on an assessment. If there is even a question, the student should be given the test in his native language or at least asked for their preference. If we are sincerely trying to gauge what these students know, we should not force them to battle the language barrier to present that knowledge.

Students should be allowed to request tests in whatever language makes them the most comfortable—no questions asked, and no hoops to jump through.

- **Learning style.** This one is a little more complicated to implement and possibly a pipe dream at this point in the assessment reform process. But a fair and effective assessment system would allow students to answer questions in a way that complements their personalities and primary learning styles (e.g., visual, aural, verbal, or physical) (Suski, 2009). Teachers could help determine this through their observations of the students. The trick would be to ensure that all the material was equally difficult and that the students were placed with the right test based on their true learning style. A student who did well in traditional test taking, for example, may perform worse in a testing environment that was tailored to visual or hands-on learners. Modifying assessment styles would need some trial and error to get right, but it could yield big results in student test success. It's something that would need a lot more research and testing before implementation, but I believe it is worth the effort to reach a point of truly fair and accurate assessments.

A major argument against standardized assessments is that they are just that—standardized (Wright, 2008). To give a full picture of what students are learning, assessments need to be customized to fit students' life circumstances and personalities. It is contradictory to say that American public schools embrace students from all backgrounds, and at all learning levels, and with every personality type but then to test one “model” student that is not an accurate representation of any of them. This doesn't further our educational pursuits, and it certainly does not further the academic success of the students who take the tests. Blanket assessments are not even an accurate representation of a teacher's strengths. By trying to accommodate the masses, assessments have left behind the individuals, and the result is a system

of testing that does nothing to help anyone in the process and that contributes little to what we truly know about actual student progress (Wright, 2008). As they exist today, standardized assessments are ineffective, misleading, and not helpful to public school culture. By adjusting these tests to meet the individual needs of the students taking them, the assessments would at least stand a chance of mattering in the lives of the students who take them (Wright, 2008).

It may be impossible to tailor each test to the needs of the student who will take it, but as technology improves, I believe the tools will exist to make this at least partially a reality. Consider an assessment future in which teachers can type in a few short answers about a student and then receive a customized test based on the responses. We have the technology through our smartphones that tells us right down to the grocery store aisle what is for sale; surely, there is a developer out there who can do the same type of targeting for test making. We should be able to create the tests that will most benefit our students and give educators the most accurate picture of what students have learned and comprehended.

As assessment makers become more technologically sophisticated, so too should the tests. States should demand these types of options of their test makers in the best interest of their students. There is no reason not to pursue more advanced forms of test delivery that take the backgrounds and learning styles of students into account. That type of test reform is necessary to understand what is being taught and learned in our K–12 classrooms.

Concluding Thoughts

It's time to tear apart the traditional way our K–12 students have been tested and look for a more targeted approach that implements technology, focuses on information gathering, and accounts for the differences among the students who take the assessments. It will take a lot of work, and it

will cost some money, but the result will be multiple assessments that tell us something about the progress of individual students.

If we want to end social promotion and retention, we need to make our public schools into places that deliver the brightest minds of their generations; then we owe it to these students to make testing fair and beneficial to them. It should not simply be a process of measuring sticks and statistics; assessments should give us a wider, detailed perspective on what our students have learned, how they've learned it, and what their learning outlook is for the future. Moving forward, social promotion and retention without the use of multiple measures should be a criminal offense.

Chapter 7: Intervening Early and Often

The final strategy for ending the major pitfalls of the pass-fail system is intervention. Early and frequent intervention is needed for students who are identified as experiencing any developmental delay or special educational need. As with the other strategies we have discussed, the strategy of intervention requires a multilevel and multilayer focus. Intervention strategies must be developed and implemented with a sound theoretical backing and implemented with adequate resources. Qualified teachers and special educators must be available to manage the implementation and monitor progress. Moreover, this entire process presupposes the availability and application of tools to identify and measure developmental delays and special needs in the first place.

The goal of this chapter is to address the key elements of intervention: *diagnostic strategies* and *intervention*. This chapter examines how schools identify children needing support at an early age and describes the methods often employed to provide support. We also look at the circumstances under which intervention can be successful and how early intervention can be used to put an end to retention and social promotion.

Definitions and Key Parameters of Early Intervention

Early intervention offers children quality early experiences usually with an emphasis on the educational side of human development. The World Health Organization (WHO) places intervention in a global context and provides a three-point description of the objectives of early intervention. First, early intervention is seen as a means of preventing disability. The prevention of additional impairments is the second aim, and the third objective is to minimize the impact of

any disability that has already occurred. Note that all these objectives are preventative (Underwood, 2012).

Successful implementation of early intervention depends on two elements: awareness and access. These two elements are deeply intertwined. Awareness depends on communication between early-intervention units, educational professionals, health-care providers, and parents. Awareness entails a knowledge of the nature, goals, and mechanism of early intervention as well as knowledge of who is a qualified recipient and how the process can be initiated. The access element of early intervention ensures that available resources and those who administer them are capable of meeting the needs of qualifying children and their families.

Because intervention works best when it occurs as soon as a learning problem is noted, parents and family members need to receive information about developmental phases and the services available through early-intervention programs as soon as possible. While family physicians and pediatricians are the first responders for issues of this sort, other education professionals, including those who oversee or participate in preschool programs and daycares, should know of and be able to refer parents to early-intervention services.

Access also deals with having a wide enough range of resources. Early intervention is deeply multidisciplinary, typically drawing on the services of anyone who works with children and youth, social workers, speech and language specialists, and pediatric psychologists. These specialists typically focus their attention on needs related to speech and language, occupational therapy, and physical therapy.

Differences Between Early Intervention and School-Based Supports

Although the title of this chapter indicates a focus on early-intervention programs, it is appropriate to describe the similarities and differences between early intervention and school-

based support before proceeding further. Supports provided by early-intervention programming have a less explicitly academic focus. Although supports have a long-term goal of promoting academic success, those goals are pursued indirectly.

Within the parameters of early intervention, a healthy student exhibits an appropriate level in areas of development. He or she can enjoy a healthy, active, and productive existence inside and outside of learning environments. The multidisciplinary approach for early intervention is holistic. Most school-based services operate on the understanding that there must be a quantifiable delay for a child to receive support. There are also limits as to how supports can be used. School-based intervention programs are less proactive and preventative, tending to approach special education resources and opportunities with an “if it ain’t broke, don’t fix it” mindset.

In addition to using a broad range of professionals to provide early-intervention services, most early-intervention programs offer support across a broad range of developmental domains. In their approach to disabilities, which are defined as dysfunctional interactions between an individual and his environment, early intervention goes further than most school-age programs. Early-intervention programs tend to work on those disabilities that hinder students in areas outside of education as well as within it. Impairment of interaction with the environment, which is not limited to school, broadens the scope of interventions that can be offered. While there may be occasional support in schools, the principal service provider of school-age supports is the teacher and, ideally, the regular education teacher. This is not always the case with early intervention.

Current Early-Intervention Procedures and Parameters

The procedures for managing early-intervention programs are complex. Of the many administrative issues that impact early-intervention procedures, funding is crucial, as are the logistics of service delivery. In the United States, federal funding and legislation support mandatory early education programs in every state. A formal system of early intervention is clearly mandated in legislation and has led to a substantial increase in the number of services available to children with disabilities. These services are, however, not meted out fairly. Moreover, as is evident in the following story, these services can be difficult to access (Lynch, 2017).

In a *New York Times* story, Lena and Robert Serpico describe their experiences with their son, whom they had taken in (along with his brother) as a foster child (Carey, 2014). Early on, it was clear that the boy had difficulties. He was restless and had problems focusing. Like so many other restless kids in elementary school, he was put on Ritalin, which seemed to help for a time. He started doing better in school, picked up the guitar, and became involved in sports. However, things changed when he turned 14 (perhaps not coincidentally, about the time he started dating). He attempted suicide and threatened to try again.

The Serpicos took their son to various psychiatrists, and he was diagnosed with everything from depression to bipolar disorder. They tried various therapies and drugs, but nothing worked. He began to slack off at school, and the Serpicos put him into a recommended day therapy clinic. He was kicked out for bringing a weapon to a session. They tried another clinic, and he was again kicked out, this time for refusing to participate, saying “It’s useless all this stuff. It’s a waste of my time.”

Finally, it seemed that their only option was to put their son in long-term residential care. However, these services cost from \$10,000 to \$60,000 per month, far more than they could afford (Carey, 2014). The Serpicos tried to get insurance to pay for the care but were refused again and again. Mrs. Serpico said,

I called the insurance company nonstop for two straight days, begging and pleading for help. I finally got through to a decision maker and said that if my son is released home and dies, it will be on your conscience. (Carey, 2014, p. 242)

The Serpicos' son was finally admitted to a residential care home but on a week-by-week basis. Two months later, he was back at home, unchanged. Finally, after hiring a lawyer, they managed to get their troubled child into a government-sponsored therapeutic home in Montana for a year (Carey, 2014). Though the Serpicos' difficulties may seem extreme, their experience is not that unusual. Lower-income families often lack the emotional as well as financial resources to deal with children who do not fit into the system and for whom only drastic intervention seems to work.

When a student is identified as needing intervention, an Individualized Education Plan (IEP) typically used in grades K–12 or an Individualized Family Service Plan (IFSP) typically used in Pre-K, is developed for the student. A standard IEP is developed specifically for each K–12 student with a disability. A well-thought-out IEP represents some of the best personalized planning in education.

The IEP lays out a year's worth of instruction and identifies appropriate goals and the educational milestones that will form the path to meeting them for special education students. IEPs are often complex documents that are 20 to 30 pages long; developing IEPs can be an arduous process. An IFSP outlines a plan for young children (pre-K) who need early intervention

services. It is customized for each child as well as the family. For instance, when children are receiving early-intervention services, the family may also need the training to support their child's needs. Since an IFSP is customized for the individual, every IFSP will be different (Underwood, 2012).

Goals in IEPs and IFSPs are designed to target educational objectives. Goals tend to vary, however, because different states have different guidelines and curricula outlining expectations for students (Underwood, 2012). One of the major factors to be aware of in the current early-intervention and school-based support systems is that expectations play a huge role in outlining goals. Because goals vary from state to state and there are sometimes different interpretations of relevant goals and standards, consistency in service delivery is a problem. The underlying goal of early intervention and school-based supports is to help children or older students overcome academic challenges related to developmental delays or disabilities.

Based on individualized goals—developed in line with the broader standards—Specially Designed Instruction (SDI) parameters are developed. SDIs are strategies designed to support the educational needs of a student who qualifies for early-intervention or school-based services. For instance, a third-grader who struggles with staying on task and who cannot concentrate due to a condition such as Attention Deficit Disorder (ADD) would perhaps have an IEP with an SDI detailing the need for tasks to be broken down into smaller chunks.

A related SDI might be the delivery of specific prompts directly to the student by the teacher to encourage the student to remain focused. Another related SDI might be specific prompts from the teacher directly to the student to encourage the student to remain focused.

Another SDI might be the provision of extra time and the option to take breaks at regular intervals to support concentration. Inevitably, the process for early intervention is very similar to

this but concentrated in the home environment because this is the natural learning environment for most children up to the age of six. Continual data collection, tracking, and analysis occur while a child receives early-intervention or school-based services. At the same time, goals, objectives, and SDIs are updated. The formal IEP or IFSP is updated and establishes the parameters for service by the treatment team. The treatment team is everyone involved in support of a child's or student's academic needs—including parents (Underwood, 2012).

Ideally, when a student prepares to enter school, there should be a smooth transition from the early childhood environment to the school setting and, if necessary, swift implementation of the goals, objectives, and SDIs according to the child's needs. Unfortunately, the transition phase of early intervention or intermediate units (between early intervention and school, in some states) is often bottlenecked because all families from across their district/state must go through the transition process at roughly the same time of year. Meetings with parents or guardians are required, and this adds to the logistical issues of organizing diagnostic, data-collection, and service-delivery efforts.

Challenges for Early-Intervention Services

For early-intervention opportunities to be effective, some of the existing procedures and parameters need to be reviewed and revised. The suggestion here is that early intervention is the appropriate strategy for promoting academic success for all students. It offers a relatively cost-effective, efficient, and effective approach for promoting quality education as well as offering necessary supports for academic success. That said, some refinements are needed to ensure maximum efficiency. As noted earlier, the logistical issues associated with early intervention, including the transition to school, are difficult.

According to Reynolds (2000), the educational environment needs specific mechanisms or processes in a concrete system, such that it can bring about or prevent some change in the system or some of its subsystems. Reynolds tracked the success of early intervention and identified important program elements. Findings showed that the following measurements correlated with academic success: preschool participation (in years), the duration of program participation (in years), and extended program participation for four to six years. Students were found to be more successful when they had high participation in all three areas. Parent participation in preschool was also found to be an important factor, as was school quality (Reynolds, 2000).

In other words, early-intervention programs should emphasize these elements: opportunities for students to participate in preschool environments before enrollment in school, opportunities for parent engagement, and opportunities for the preschooler to participate in the program. At the same time, early-intervention programs are governed by financial and logistical considerations. No matter how much they might wish it, school districts and states can spend only so much on early-intervention and support services. Budgetary considerations must have some weight, not necessarily in determining rigid service parameters, but certainly in creating service guidelines.

Importance of Frequent Early Intervention

The importance of early intervention has to do with the relationship between academic success and the ability to function—behaviorally, emotionally, socially, physically, and intellectually—in one’s environment. It is well documented that students can experience disruption to their learning as a result of behavioral issues and lack of skill in key learning domains. In other words, they can struggle academically because they can’t function well in their environment. This is

especially true for young children entering school for the first time. In the areas of language, early literacy, mathematics, socialization, and self-care, young children may experience delays that cause them to lag in their studies. For children with diagnosed disabilities, including the astonishing number of students with an autism spectrum disorder, the supports of early intervention help to prevent additional developmental difficulties and make existing development conditions better (Underwood, 2012).

Beyond this, there are also the positive and direct aims of early intervention, which include the promotion of early learning opportunities and the enhancement of basic knowledge and skills for students. Early-intervention strategies, according to available research efforts, support these positive aims. A significant amount of research confirms the success of all types of early-intervention programs (Guralnick, 2000, 2004). As a result of their successes, early-intervention programs of various types are widely accepted as having both a preventative and a positive impact on child development, with an emphasis on the management of special needs and promotion of school-readiness.

Other specific benefits of early-intervention programs include fewer referrals to special education services in schools. At least one major study suggests that there are gains in developmental outcomes for *all* children in inclusive early childhood settings (Fuchs & Deshler, 2007). The success of early intervention is not unqualified, though. As we have suggested, obvious challenges exist to their implementation and effectiveness.

Most developmental issues have an impact on learning, and early intervention has been shown to lessen certain problems, thereby limiting academic delays caused by a developmental issue. Indeed, this is one of the reasons why early intervention from birth to three years, and even between three and five, is so crucial.

Most children do not enter a formal school setting until about the age of five or six. This depends on a variety of factors, but primarily on calendar age and maturity. A child who receives intervention to address delays before he or she enters formal schooling is far more likely to succeed academically than a child who does not receive such interventions. However, interventions later in a child's school career, when he or she is already struggling, have a limited impact.

Principal objectives for service delivery in a school setting would be twofold. Not only would the child need to have assistance to address their diagnosed delay, but they would also require assistance to maintain an appropriate standard of academic performance, to keep up with peers, and to make up any knowledge lost between the time when the developmental issue became apparent and the point at which it was addressed with appropriate interventions. Because of the natural logistics of the system, there is often at least a 60-day window before adequate data can be collected about the needs of a student. Adequate data is needed for school teams to create IEPs, and data collection is the general purpose of the 504 plan that serves as a monitor for a child's academic progress and general developmental progress. A 504 plan is a written plan for people with disabilities who qualify under the U.S. Rehabilitation Act of 1973; the plan lists the accommodations or services that they will receive.

Early intervention should be considered together with the education system's objectives. For children from birth to pre-K, IFSPs or IEPs target the development of positive socio-emotional skills, the ability to apply appropriate behaviors to meet needs, and the development of skills related to knowledge and skills acquisition. For children birth to pre-K, these knowledge and skill areas are generally concentrated in early language development and communication skills, which serve as a foundation for more advanced developmental learning. Other skills

targeted for children in this age range include problem-solving skills, basic number concepts, and basic reasoning skills.

In child-centered terms, the goal of early intervention is to ensure that children entering school have the necessary skills to succeed academically; that is, they are able to meet the demands of the classroom learning experience as well as the specific demands related to knowledge and skills acquisition. Students are often retained because they have failed to master some level of knowledge or certain skills, especially about basic literacy. If early intervention helps to reduce the number of students who are retained, its use is justified. Early intervention is a crucial tool for the development of literacy skills and communication skills. It is also crucial for the development of appropriate socio-emotional and behavioral skills, all of which have an important, if indirect, impact upon educational experience.

Early intervention also removes ideas of student accountability, at least insofar as it is applied to students before they enter school when learning is very much a natural process, undertaken in the natural environment—including, most notably, in the home. From the perspective of early intervention, the fact that certain children do not develop certain skills or acquire certain knowledge is not necessarily the fault of the child or their environment. It may be that fundamental developmental processes and various foundational skills must be developed before a higher level of learning is possible.

Early-Intervention Supports and Strategies

To develop an effective early-intervention model based on supports and strategies, two distinct supports and strategy types are necessary. First, early intervention depends on diagnostic procedures, which in turn depend on clear strategies. Second, the system also depends on clear

rules for selecting and implementing supports and strategies, considering student needs and diagnostic findings.

Some diagnostic tools have been developed to assist early intervention. For students demonstrating emotional, social, and behavioral delays and dysfunctions, one of the most important diagnostic tools is the functional behavioral analysis (FBA). As Hojnoski and Wood (2012) point out, educators are increasingly aware of the connection between the social behaviors of children and early academic skills.

Research has consistently shown that young children who demonstrate challenging behavior may experience disruption to their learning. Problem behaviors may interfere with their opportunities to learn and effectively interact with peers in classroom situations (Bulotsky-Shearer, Fantuzzo, & McDermott, 2008). Research also recognizes that certain classroom activities, particularly structured activities, place high demands on children who already struggle with behavioral challenges (Bulotsky-Shearer et al., 2008). Research also shows that children may engage in challenging behavior as a means of avoiding demands placed upon them (Hojnoski & Wood, 2012).

As a tool, though, an FBA is a direct and indirect procedure for collecting data related to problem behaviors. Direct data collection methods include classroom observations, while indirect methods of assessment include interviews with parents and teachers and the use of rating scales to assess behaviors. The subsequent analysis of such data identifies behavioral triggers and their antecedents, the reasons why the behaviors occur, and the functions and consequences of the behavior (Kern et al., 2007).

Other diagnostic tools also make use of observation. Occupational therapists will, for example, generally observe students to identify the daily tasks with which children have

difficulty. Some diagnostic tools—such as questionnaires—may also be used for occupational therapy assessment as well as language and behavioral assessment. Parent participation and preschool involvement may be important in the use of such tools since the best observations and data are collected from individual students in a classroom context, subjected to the academic, social, emotional, and general behavioral demands of the classroom environment. Even self-care skills and language skills can be better assessed in a classroom than in the home or community, and early intervention acts on this knowledge.

Despite the strengths of existing diagnostic tools, they still have their weaknesses. For instance, many school districts administer FBAs indirectly rather than directly. When FBAs are administered indirectly, they concentrate not on direct observations of children in classrooms but indirect observations. They also tend to lack multiple elements that, in regular assessment procedures, would include efforts to gather information about instructional variables and early academic skill development (Hojnoski & Wood, 2012).

One criticism of FBAs conducted within early education settings is that the same interview form is used by parents and teachers for students spanning a wide range of ages, with only a few modifications made for different age groups. Because of this limitation, the FBA form does not allow parents and teachers to accurately describe specific behaviors in sufficient detail to definitively assess their developmental appropriateness (Hojnoski & Wood, 2012).

In their assessment of FBA tools, Hojnoski and Wood (2012) note that the two interview forms—a form used for elementary school and a form used for older children—include two general questions to identify areas in which skills are lacking. There is, however, little effort to gather information to identify areas of concern related to the development of specific academic skills relevant to early childhood and elementary education (Hojnoski & Wood, 2012).

Recommended Changes for Implementation and Delivery

For diagnostic procedures to be effective, a variety of tools should be used, and these tools should reflect age-appropriate diagnostics for language and for social and behavioral interactions. Early intervention might benefit from specifically targeting the problems that most commonly cause academic delays and disruptions in the classroom. With this information in hand, it might be useful to focus on identifying or otherwise developing age-appropriate tools to test skills and knowledge, and even to identify those students who are most at risk of deficits in certain areas. The goal of early intervention should be not simply to stop or reverse academic delays, but as much as possible to prevent them.

Regarding early-intervention supports and strategies, the number of issues addressed requires the use of a corresponding number of supports and strategies to meet student needs. Several types of professionals, some of them educational specialists, are also employed by early-intervention units and by school districts to offer supports. For instance, special educators and itinerant teachers may work alongside speech pathologists and occupational therapists.

For early interventions to be effective, there is considerable need for quality service delivery, and service standards should be put in place. The issue of establishing quality services for early-intervention supports and strategies has received much attention. The U.S. early-intervention model needs to have greater consistency in its supports and strategies. There is a high degree of variation among school districts and regions regarding support strategies and resources made available to students based on need. Therefore, national guidelines are needed to define levels of support and methods of support delivery for students who qualify for early-intervention services.

There should be some effort to scale need against resources, identifying those students, in all regions, who have the highest level of need and coordinating resources and supports to ensure that the most resources are targeted to those students who have the most substantial issues. Measures must be developed to ensure that proper resources are brought to bear on individual students with specific developmental issues.

To meet the needs of all students, interventions must address behavior, language and communication, emotions, physical conditions, social interactions, and self-care supports. And educators need to look beyond the purely academic. A child with an autism diagnosis, for instance, and thus a social communication disorder, may not be deemed to have social and communication issues that significantly impact his or her learning. However, based on the natural arc of the disorder, it is probable that such a child will develop academically or educationally significant issues as he or she matures. This occurs as the demands for communication and socialization increase as the child's fellow students mature.

A different type of “grading” or “social promotion” policy will emerge if early-intervention and school-based supports do not look beyond the immediate situation to address the ultimate outcomes that can, over time, undermine a child's academic development. Thus, providing social and communication supports in school or early learning environments—the natural setting where social and communication demands exist—will be an investment in the long-term success of the child, helping to cut back on other problems associated with retention and social promotion.

Teacher Education in Areas of Developmental Delay and Inclusion

The strength of strategies and special education support resources can only do so much to promote the academic success of students who have a developmental delay or disability. Regular

classroom teachers remain vital touchstones for early intervention, not only as key figures in the diagnostic process but also as supporters of early-intervention models and implementers of certain early-intervention strategies.

Teachers must receive training to spot students who could benefit from special education supports. Likewise, all teachers who work with preschoolers within the age range for early intervention should have specific training to understand student needs well enough that they can spot potential developmental or learning issues. All teachers and general educators, not just those working in early childhood, should receive specific training in teaching special education programs. All teachers need to understand how to provide support holistically.

One of the biggest challenges for effective early intervention is the development of a system that provides consistent supports across all settings. School success depends on children's ability to function on many levels and their ability to adapt to change and manage stress. Learning opportunities exist for children everywhere, especially young children. Early intervention should take advantage of this and teach the natural caregivers and supporters how to use these opportunities.

Many programs can inspire parents to help their children learn. For instance, many public libraries offer reading programs over the summer, partly to help parents minimize loss of skills over the summer months. Such programs are not always as well supported as they might be. Teachers and special education professionals are well placed to offer parents information about such programs.

Teachers could be encouraged not only to share information about how a child can be supported in their learning outside the classroom but also to receive feedback and insights about the child's needs and their experiences at school, as those experiences relate to and affect the

home environment. Parent-teacher communication is extremely important, especially when early intervention and school-based supports are needed to facilitate a child's learning. Early intervention and special education systems should help teachers understand family concerns and the needs of exceptional students. This assistance will help teachers meet those needs and communicate with parents about their students' knowledge and skills.

School Partnerships and Parameters

Another condition for early intervention to serve students better is an appropriate relationship between early-intervention organizations and schools. The transition procedure from early intervention to school should be streamlined. There also a need for far greater consistency between early-intervention programs and school-age programs, as well as between programs in different regions, including across school districts and states.

Early-intervention and school-based service providers must work together to support children because of the unavoidable but often unaddressed reality that children do not arrive at school with empty minds. The educator's task is not to fill the mind (it is already full), but to enlarge its capacity—the capacity for knowledge and critical thinking, for analysis, and for understanding. For this to be achieved, though, and for children to truly be the subject of their educational journey, a working partnership must be developed between early-intervention service providers and programs that take on the challenge of supporting children beyond the early developmental phases.

However, a partnership between early intervention and schools cannot occur without an appropriate knowledge foundation. It is crucial that educators at all levels understand how early experiences and early childhood development are crucial to later learning. The broader point is that there needs to be a relationship between the curriculum and the realities that children

construct for themselves. This depends on clear collaboration between school and early intervention, beginning with the establishment and maintenance of clear standards for supports.

While early-intervention programs and school-based programs must continue to address students in general, the specific needs of each child should also be addressed. Standards may dictate the type of supports to be used and what kind of services are to be offered. They may also, for the sake of managing resources, dictate what levels of supports are to be offered to students based on need assessments. The types and levels of support may be customized within parameters defined at a higher administrative level.

Ideally, there should be protocols for requesting that certain protocols be overlooked on a case-by-case basis so that individual students receive supports tailored to their needs. A child might, for instance, receive more behavioral supports in school or their early childhood environment than would be warranted based on assessment results and diagnostic findings. The reason for this could be that the child was demonstrating behavior of particular concern that needed additional support.

Although it is hardly possible to do away with budgetary considerations in the planning of early-intervention and school-based supports, the general rule should be established that early-intervention services and supports in early school years are likely to produce a much higher return on investment than those applied later in a child's school career. All educators, but especially special education teachers, must consider the long-term consequences of withholding services and supports that they require to succeed in school as well as curtail disruptive or self-destructive behavior.

Even with the use of multiage classrooms and the end of retention and social promotion, school failure will persist because of counterproductive pressures and inadequate support.

Children do not arrive with empty heads; they have expectations, standards of thinking, and processes of learning that, if ignored in the school setting, will cause academic failure and, perhaps, the decision to drop out of school.

Just as regular school programs should seek to engage students regarding their interests and passions, early-intervention programs and school-based support systems should also collaborate in identifying ways to engage students with special needs based on their interests and passions. As has often been pointed out, the most effective teachers are those who develop learning environments and relationships that cultivate an individual passion for learning.

MATCH is an early-intervention program based in Boston, MA, which seeks to give students the tools they need to get into college (ABC News, 2007). Almost all the students in the program are minorities; most are from families below the poverty line, and most have deficiencies in reading and math. Principal Jorge Miranda says that the school uses rigid discipline and a hefty set of rules to keep students in line. The school day starts before eight and ends at five. Signs posted around the school regulate everything—the dress code, unexcused absences, tardiness, and poor posture in class. Principal Miranda notes that “If you’re in the classroom and your head is down on the table or you’re leaning back, you’re not focused on learning ... even if it’s for a minute, that’s a minute that we’ve lost” (ABC News, 2007, para. 7).

The program takes in students like Luis Sanchez who arrived at the school after living on the streets for two weeks. Initially, it was extremely difficult for Sanchez, who said, “It felt like a burden on me because I wasn’t used to it. And it just hurt me sometimes; it got me frustrated and angry” (ABC News, 2007, para. 10). Classes at MATCH are small—a key feature of schools that implement early intervention effectively. Another key feature is the one-on-one tutoring for students who request it. The tutors called the MATCH Corps, receive a small stipend that is

partially funded through AmeriCorps. They make a one-year commitment to tutor students at MATCH.

Though adjusting to the school can be difficult, it has worked for students like Sanchez, who appreciate the love behind the strictures. Sanchez says, “They cared. I mean, Mr. Sposato, who was our principal back then ... took me aside about every day and just told me, you know, ‘You’re here to learn. You’re here to do something with your life’” (ABC News, 2007, para. 15).

The program not only turns students’ lives around; it also turns them into stellar scholars. The school had the highest scores in math on the state standardized test, and many students had scores high enough to get free tuition at any state university in Massachusetts. All the graduates of its first four graduating classes were accepted into four-year universities (ABC News, 2007).

Early-intervention programs and school-based programs must align to promote the interests of all students and foster this kind of student-centered learning model in special learning programs. If students and specialist staff have the benefit of working within a relatively stable environment—one that does not involve a child transitioning to a new classroom every academic year—then the opportunities for the development of a child-centered learning model and child-centered support systems are endless. Schools and early-intervention organizations can likely manage the costs of providing special-education supports by enhancing the efficiency of those supports delivered in the early years.

However, they must work together nationwide toward the achievement of equal-opportunity, student-centered learning models. With parameters in place and clear guidelines for child-centered supports, schools, and early intervention programs can also work together to go beyond budgetary considerations. They may have the opportunity to end much of the dysfunction surrounding the transition of children from early intervention to school programs.

Finally, if early-intervention programs and schools can work collaboratively, then the needs of the individual students and their families may be better served. Indeed, some responsibility to remove negative views of early intervention and special education support must fall on schools and early-intervention units. These are the groups responsible for supporting students at either end of the academic spectrum, gifted students and those with learning disabilities.

There are ethical considerations regarding the integration of exceptional students in traditional classrooms. The legal requirement to provide free and appropriate education to all students in the least restricted environment is frequently extended to children with special needs. In turn, this mandate implies that integration or “push-in supports” in a traditional classroom produce higher levels of learning than models that remove students with special needs to separate classrooms where they are taught “life skills.”

While not every student will benefit from an inclusive education, most students will; inclusion should be promoted as the preferred model for learning. Early-intervention programs and schools must work toward this by collaboratively promoting parent education and supporting programs related to the delivery of special education services in inclusive environments. It is easier and more efficient to train teachers and establish regularly integrated supports for students with special needs in schools that de-emphasize standardized testing, standardized curriculum, and graded learning. An important caveat is that the training and supports would be continued for at least two academic years for each child (assuming he or she entered a multiage classroom at the right age).

Concluding Thoughts

Creating a program that includes early intervention and special education supports is challenging. Reconciling the different needs of special education children with “normal” or “gifted” students is sometimes inflammatory. “Special education” has acquired a stigma because of fears and misunderstandings of education and its possibilities.

Efforts to standardize education and standardize students have not created a culture of acceptance for students who learn differently or who have specific disabilities that impact their learning. Thus, one of the major benefits of a multiage, student-centered learning model for public education is the possibility that all students, whatever their intellectual assets or liabilities, can be helped to reach their full potential, as students within a common classroom, and as caring human beings in later life.

Inclusion, all students in a common classroom, would be that much easier in a multiage learning environment, and for precisely the same reasons that multiage classrooms benefit children and teachers with a background of traditional schooling. In a multiage learning environment, there is less anxiety associated with the school experience because both student and teacher know they have the opportunity to develop meaningful, durable relationships. At the same time, teachers know that they will have the time and opportunity to learn the needs of their special-needs students.

Research has overwhelmingly supported the notion that early intervention—and the earlier, the better—is the key to helping exceptional students achieve school-readiness and strategies for success. The early-intervention model proposed here not only embraces that principle but seeks to celebrate it as a focus of collaboration between those responsible for the

early interventions (preschool-age interventions) and the schools, which take charge as a child transitions to school-age programming.

Promoting collaboration as well as early and frequent interventions is a strategy that seeks to build community support for education, and for public education specifically. It seeks to emphasize the need for supports across all settings and the benefits for that comprehensive support model. The strategy seeks to eliminate the need for children to be segregated based on special needs. Rather, the only grouping or streaming should be based on academic abilities and learning preferences. Schools could easily support the streaming of groups with certain abilities without targeting students with special needs. The model proposed here will allow them to do so.

A student-centered focus also allows for a flexible and ethically sound approach to supporting students with exceptional needs, whatever they may be. While it is well established in law, for instance, that there can be no discrimination against students based on a variety of factors, including age, family background, disability, and economic status, the reality is that there is at least indirect discrimination in the education system. School district funding is highly competitive, and certain districts around the country essentially act without regard for the best interests of students or higher principles of equality established by law.

In the current system, the “politics” of public education can be detrimental to the needs of exceptional students, and very often is. The problem is largely the result of the emphasis on test-taking and on increased levels of support for schools that test well. Of course, supporting students to produce exceptional results in standardized tests is not the domain of specialized instruction. The domain of that educational model is to support students to ensure that they can obtain an education—free, appropriate, and minimally restricted.

The proposed model of frequent and intensive interventions, especially in the early years, allows for a focus on quality education beyond such false parameters as tests. The emphasis can be on skills for learning rather than static knowledge, allowing that students may learn best throughout their careers if they are supported in the development of solid reasoning skills, critical-thinking skills, and a range of fundamental skills that relate to actual function within a school environment.

Chapter 8: Conclusion: A New Plan for K–12 Success

Having thoroughly examined America’s reliance on a shockingly unsophisticated pass-fail education model, we must conclude that the system is seriously flawed. What is more, the system seems indifferent to the impact this pass-fail system has on the lives of many children and their families. At-risk students who are in desperate of a good education are likely to find themselves promoted by age with no concern for subject mastery or held back regardless of age when metrics are not met. As we have demonstrated, neither choice is academically advantageous as all available indices show that students who are socially promoted or retained are worse for it. Adherence to such a policy demands an explanation. Why are educators, parents, and the American public complicit in a practice that does demonstrable harm to children and the competitive future of the country?

Moving Beyond the Pass-Fail System in K–12 Classrooms has sounded a clarion call for change not only as it relates to retention and social promotion, but also as it affects all stakeholders in the education system—all students, teachers, administrators, and parents. This book argues that a systemwide shift to individualized learning and varied assessment strategies is needed. Research cited in the preceding chapters presented many different methods that can be used to improve student instruction in classrooms and eliminate the need for retention and social promotion if combined effectively. Modified standards, better teacher training, multiple approaches to assessment, and a whole new outlook on K–12 classroom design must be part and parcel of a drastically redesigned K–12 learning environment. Replacing the pass-fail system with something equally rigid and simplistic would not improve the public education system in any meaningful way. What is needed is an entirely new approach that is thoughtfully assembled, piece by piece, from the ground up.

In some sense, we may need to look back to go forward. The American education system started with the iconic one-room schoolhouse where students of all ages learned together in a common room. While quaint by today's sophisticated standards, those schoolrooms represented great educational equalizers. In this light, it is once again important to remind ourselves why the more rigorous, age-based system has come up short in serving a significant portion of our student population. Pass-fail systems have been in place for decades without being subjected to serious review. The time for review and stringent assessment has come. What would the K–12 system look like if pass-fail, graded classroom policies were eliminated? If retention and social promotion are truly designed to help the individual student, why are students doing so poorly?

Now is the time to move beyond our current pass-fail system and to boldly go into a new era in which more students can thrive in our educational system. I will conclude by advocating workable alternatives to pass-fail, many of which rely on various types of targeted intervention for struggling students. Special attention will be given to practical, cost-effective interventions that can be implemented in public schools with minimal disruption to students.

To transform our traditional K–12 schools from their current reliance on a pass-fail system will require the integrated implementation of the strategies advocated in this book. The solutions must be as multi-faceted as the problem. Considering the multiple problems affecting the K–12 system, I encourage the reader to consider the following five-point strategy for eliminating the pass-fail system and for qualitatively improving the efficacy of the U.S. public education system.

Strategy 1: Rethinking School Design for Better Learning Outcomes

Redesigning America's public school system is clearly the most substantial element of the proposed reform. Redesigning America's schools involves many levels of change and would

take a considerable amount of time. Nonetheless, there is immense potential in the effort, including the opportunity to identify and learn from those aspects of the American education system that have been successful in the past as well as those that continue to be successful today. The multiage classroom approach has a great deal to offer as a model that would reduce some of the most negative elements in the current system, especially the anxiety many students experience in the school setting and their lack of excitement for the experience of learning.

The goal of a redesigned system is to revive a passion for learning among our students. The Founding Fathers had a deep curiosity and love for intellectual development and study. The talent that existed among those who founded this nation is something that could, even today, help rekindle a national passion for learning, innovation, and creativity. The need for such a rekindling is becoming ever more crucial because of the importance of knowledge and innovation in a global economy.

Inspiring students to be creative, analytical, and resourceful in their thinking will have profound ramifications for them and for society at-large. The cost of retention and social promotion policies includes high unemployment rates, reliance on public benefits, high dropout rates, and many social and emotional issues that manifest as problems of self-esteem. Creating a passion and a capacity for learning would teach American students to take care of themselves, boosting their self-esteem.

In our post-modern world, new ideas and new technologies are rapidly making old systems obsolete. Depending on the quality of his or her education, an American worker will find this reality to be either depressing or an inspirational challenge. An individual who has enjoyed a high-quality, inspiring education that fosters critical thinking and an appreciation of

knowledge will be able to overcome the challenges of a global marketplace instead of being left behind by change.

Redesigning the U.S. educational system requires that it respond to the ever-changing needs of a diverse and technologically advanced society. Redesign refers to rectifying something that is unfit for or has outlived its purpose. It is a continuous process. As high school graduates are expected to become a part of the national workforce, the output of schools needs to be in line with the expectations conferred on the national workforce.

This means that schools must graduate students who can think critically, innovate, and demonstrate high aptitudes. To accomplish this vital mission, the system must give students an education that allows them to develop and hone these necessary skills. Doing so will enable students to meet the challenges of a dynamic global economy, which demands that they possess emerging and evolving skills and be willing to engage in professional development.

Strategy 2: Mixing Ages in Classrooms to Accommodate Developmental Differences

All the strategies for ending the traditional pass-fail model presuppose a substantial and systemic change to the American educational system. Indeed, the strategies discussed in this book are not exclusively or even primarily focused on retention and social promotion, which are seen merely as symptoms of a greater disease. The central focus of this book is on putting an end to the graded education model and the related problems of standardized assessments and a graded curriculum. These are the factors that undermine our educational system most insidiously, often leaving the most vulnerable and talented of our students without a place in the educational system.

Multiage classrooms can promote developmentally appropriate, innovative, and engaging educational opportunities. The multiage classroom has tremendous potential as an educational

approach if supported by skilled, qualified, and dedicated professionals in various capacities. However, it bears repeating that many different elements must be successfully integrated if a multiage classroom is to attain its full potential.

Human development entails an interrelated sequence of changes in socialization, behavior, communication, and physical development. Students need the opportunity to work on these areas of development as much as they need the opportunity to develop intellectually and academically. Students need to be able to interact appropriately with their peers and with adults. Behavioral considerations are related to both emotional and social development. Given the evidence that multiage classrooms provide benefits in these areas, graduates from multiage programs can be expected show social and emotional maturity as well as academic achievement. Behavioral problems can be more effectively addressed in a multiage classroom because of the regular exposure of younger students to their more mature peers.

Rather than basing the minimum acceptable grade on a child's age, mixed-age classrooms take developmental differences into account. Mixed-age classrooms group children in developmentally similar groups spanning two or more years to optimize the learning potential of each child.

Strategy 3: Redefining the Teacher's Role to Promote Student-Centered Learning

Research continues to show that good teachers are the single most effective factor in student success. Unfortunately, not all teachers are adequately prepared to address the rising standards of education in the modern world. The problem lies not so much with the teachers themselves as it does with their lack of training and lack of access to teaching resources. To avoid both retention and social promotion and to break free of the current age-grade structure, teachers must be better

prepared. Moreover, they must continue their own professional development throughout their careers.

Because hiring quality teachers is the first step outlined in our program for change, it is particularly important that the time frame for educational transition be a prominent element of the reform process. On the surface, hiring “qualified” and “competent” teachers seems easy enough and should be something that schools are already doing. The problem is that the hiring and retention of teachers reflects the standards of a dysfunctional system. It is probably too harsh to say that schools have no one to blame for the teachers they have except themselves. Nevertheless, it is certainly true that the effectiveness of teachers in the U.S. public school system is unlikely to improve until hiring standards are revised to reflect the requirements of multiage classrooms, individual interventions, alternative assessment procedures, and other elements of individual-based education. Moreover, schools must be prepared to implement retraining programs for teachers who were hired into the existing pass-fail, age-graded standards. It is not enough, or even fair, to simply round up anyone suspected of incompetence.

It stands to reason that if students are changing, teachers need to change too. More specifically, the education that teachers receive needs to be modified to meet the needs of modern K–12 classrooms. Policy and practice changes are taking place all over the world—many driven by teachers—to address the cultural shifts in the classroom. Some of the more promising recent developments in the educational world include the following items:

Subject-specific recruiting by colleges and universities. The book *Teaching 2030*, written by 13 experts in K–12 classroom pedagogy, calls for university schools of education to stop admitting students just to maximize their enrollment numbers (Berry, 2011). Instead, the experts suggest that colleges become more selective to meet the needs of today’s students.

Young people who want to teach in high-demand subject areas such as mathematics, bilingual education, physical sciences, and special education should be given a higher priority by university teacher-education admissions boards. Taking a needs-based approach to college admissions will address major voids in the profession and produce teachers who are better equipped to meet students' needs.

Virtual learning options. As discussed earlier, K–12 education has begun to provide distance learning options for students in some areas. The trend toward increased use of virtual K–12 learning is one that teachers-to-be simply cannot ignore. Virtual learning is not reserved solely for those who can afford it; 40 U.S. states have state-run online programs, and 30 of those states provide statewide, full-time K–12 schools online.

Public education in America needs teachers who are better trained to meet the needs of specific student populations, who understand the role of distance learning, and who are willing to speak up for making real change in the classroom. Without such teachers, it is unlikely that the pass-fail model can be replaced by personalized learning.

Strategy 4: Using Multiple Assessments to Determine True Learning

Many educators view standardized testing as a necessary evil, while others see it as a completely useless process that does not reflect what students know. Proponents of K–12 assessments contend that there is no adequate way to enforce educator accountability without them. Most states and school districts rely on large-scale assessments when it comes to student grade progression, but such assessments should only be a small piece of a larger analysis of individual students. Multiple sources of information about a student's performance should be available to determine the student's readiness for the next grade, and teachers should make use of those data points.

Compared with the scale of change required to implement Strategy 1, the idea of creating multiple assessment measures is relatively easy. To some extent, public schools already make use of multiple assessment measures. For instance, multiple assessment measures are standard for students with IEPs, which are not usually changed without referring to multiple assessment measures. The real key to reimagining assessments is not so much finding multiple measures as it is the selection of those measures and deciding how they should be administered and interpreted.

The use of multiple assessments, including some that do not entail testing, makes allowance for that considerable portion of the student body that does not perform well on tests. Multiple assessments also allow for the possibility that a student simply may be having a bad day on the day of the test. Finally, including assessment elements that do not consist of rigid, multiple-choice tests reduces the likelihood of students “overthinking” higher-level questions, and inadvertently providing the right answer to the wrong question.

A combination of assessments is best both for simple assessment of learning and for making decisions about retention. The decision to hold a student back, if made at all, should be based on multiple measures of performance, never solely on a standardized test.

Strategy 5: Intervening Early and Often

The last strategy is the provision of intervention opportunities. In a redesigned educational system, assessments as well as many other indicators would trigger one or more remedial interventions. To implement this strategy, teachers need straightforward ways to identify a child who needs extra help as well as the knowledge and training to make use of the extra resources required. There is strong evidence that such intervention programs can prevent more serious academic problems from occurring in later grades.

A system for intervening early and often has already been established to some extent. Across the country, many school districts employ early-intervention services, including intermediate unit support systems, early childhood support systems and, of course, school-aged support systems that help children in school, starting the first time they walk through the school door.

The changes needed to promote intervention are like those we have already suggested for improving teacher quality: Apply measures that intensify policies and procedures that have worked well in the past, perhaps modifying them somewhat to meet specific, contextual requirements. Research overwhelmingly supports the notion that early intervention—the earlier, the better—is truly the key to helping students achieve school-readiness and develop strategies for success. The early-intervention model proposed in this book not only embraces that principle but seeks to celebrate it as a focus of collaboration between those responsible for the early interventions (preschool-age interventions) and the schools, which take charge as a child transitions to school-age programming.

Promoting collaboration as well as early and frequent interventions is a strategy that seeks to build community support for education—for public education specifically. It emphasizes the need for support across all settings and the benefits of a comprehensive support model. The strategy seeks to eliminate the need for children to be segregated according to special needs. Rather, the only grouping or streaming allowed in education should be based on academic abilities and learning preferences. Schools can easily support the streaming of groups with certain abilities without having to target students with special needs.

The proposed model of frequent and intensive interventions, especially in the early years, allows for a broad, quality education that addresses far more than performance on tests. If the

goal is truly to prepare students for a lifetime of learning, the emphasis of early education should be more on the acquisition of learning skills than on the accumulation of knowledge. The primary goal of K–12 education really ought to be helping students learn to think critically and to function effectively within a school environment.

The Last Word

This book contends that ending retention and social promotion is justified by both practical and theoretical considerations. Doing so does, however, also entail ending graded education and standardization. Collectively, these changes require a substantial overhaul of the entire system of public education in the United States as well as the re-education of its stakeholders.

The five-pronged approach described in this chapter outlines a promising plan for replacing retention, social promotion, graded classrooms, and standardized tests with a fundamentally more effective educational system. If the stakeholders in the public education system are to be brought on board in support of this plan, the campaign to re-educate them must begin as soon as possible.

As we prepare to move forward, we must take an honest look at our current educational system, realizing that the benefits of our current strategies are negligible. The United States is losing the knowledge and innovation battle and will ultimately lose the war unless reform begins soon. The tragedy of handicapping our children with a second-rate education is all the worse because it is so unnecessary. As a nation, we have the information that justifies the changes outlined in this book. As citizens and parents, we must provide our children the high-quality education envisaged by our Founding Fathers—education that stimulates creativity and a love of learning.

Only by acknowledging the harm done by grade retention, graded classrooms, and standardized tests can the American public education system rise to the challenge of the modern world and provide a world-class education that is free, effective, and fair to all segments of society. Even if the American public education system is not completely transformed, there should at least be a shift in our approach to assessment. American schools should at least put an end to the use of restrictive, standardized testing and the use of retention and social promotion policies.

REFERENCES

- ABC News. (2007, October 7). Tough school propels inner-city kids. *ABC News*. Retrieved from <http://abcnews.go.com/WN/Spotlight/story?id=3699902>
- Aina, O. E. (2001). Maximizing learning in early childhood multiage classrooms: Child, teachers, and parent perspectives. *Early Childhood Education Journey*, 28(4) 219–24.
- Aldridge, J., & Goldman, R. (2007). *Current issues and trends in education* (2nd ed.). New York, NY: Pearson.
- American Educational Research Association, American Psychological Association, & National Council of Measurement in Education. (2014). *Standards for educational and psychological testing*. Washington, DC: AERA.
- American Speech-Language-Hearing Association [ASHA]. (2008). *Roles and responsibilities of speech-language pathologists in early intervention*. Retrieved from the ASHA website: <http://www.asha.org/docs/html/TR2008-00290.html>
- Arruza, E. (2012, September 24). High school dropout shares his story. *Chicago Tonight*. Retrieved from <http://chicagotonight.wttw.com/2012/09/24/high-school-dropout-shares-his-story>
- Baker, E. L., Griffin, N. C., & Choi, K. (2008). The achievement gap in California: Context, status, and approaches for improvement. Paper prepared for the California Department of Education, P-16 Closing the Gap Research Council.
- Babcock, P. & Bedard, K. (2011). The wages of failure: New evidence on school retention and long-run outcomes. *Education Finance and Policy*, 6, 293–322.
- Barnes, G., Crowe, E., & Shaeffer, B. (2007). *The cost of teacher turnover in five school*

- districts: Executive summary*. Retrieved from http://www.nctaf.org/resources/demonstration_projects/turnover/documents/CTTExecutiveSummaryfinal.pdf.
- Bennett, R. E. (2015). The changing nature of educational assessment. *Review of Research in Education*, 39(1), 370–407. <https://doi.org/10.3102/0091732X14554179>
- Berry, B. (2011). *Teaching 2030: What we must do for our students and our public schools—Now and in the future*. New York: Teachers College Press.
- Bloom, M. (2016, October 17). Retaking classes online: ‘Awful if someone really wants to learn.’ *The Atlanta Journal-Constitution*. Retrieved from <https://www.myajc.com/news/local-education/retaking-classes-online-awful-someone-really-wants-learn/WtpYxkN869EqGFN1mwR2XJ/>
- Broome, J. L., Heid, K., Johnston, J., & Serig, D. (2015) Experiences in multiage art education: Suggestions for art teachers working with split class combinations, *Art Education*, 68, 30–35, DOI: [10.1080/00043125.2015.11519311](https://doi.org/10.1080/00043125.2015.11519311)
- Bulotsky-Shearer, R. J., Fantuzzo, J. W., & McDermott, P. A. (2008). An investigation of classroom situational dimensions of emotional and behavioral adjustment and cognitive and social outcomes for head start children. *Developmental Psychology*, 44, 139–154.
- Burkam, D. T., LoGerfo, L., Ready, D., & Lee, V. E. (2007). The differential effects of repeating kindergarten. *Journal of Education for Students Placed at Risk*, 12(2), 103–136.
- Capper, C. A., & Frattura, E. M. (2009). *Meeting the needs of students of all abilities: How leaders go beyond inclusion*. Thousand Oaks, CA: Corwin Press.

- Cannon, J.S., & Lipscomb, S. (2011). Early grade retention and student success. *Public Policy Institute of California*. Retrieved from:
http://www.ppic.org/content/pubs/report/R_311JCR.pdf
- Carey, B. (2014, June 22). Seeing sons' violent potential, but finding little help or hope. *The New York Times*. Retrieved from http://www.nytimes.com/2014/06/22/health/seeing-sons-violent-potential-but-finding-little-help-or-hope.html?_r=0
- Carter, P. (2005). The modern multi-age classroom. *The Whole Child*, 63(1), 54–58.
- Center for Public Education. (2006). Standardized tests and their impact on schooling: Q&A. Retrieved February 19, 2013 from <http://www.centerforpubliceducation.org/Main-Menu/Instruction/High-stakes-testing-and-effects-on-instruction-At-a-glance/Standardized-tests-and-their-impact-on-schooling-QA.html>
- Center on the Developing Child. (2007). The science of early childhood development (InBrief). Retrieved from <https://developingchild.harvard.edu/resources/inbrief-science-of-eed/>
- Center on the Developing Child. (2010). The foundations of lifelong health are built in early childhood. Retrieved from
http://developingchild.harvard.edu/library/reports_and_working_papers/foundations-of-lifelong-health/
- Chen, G. (2011). Is social promotion crippling our children's future? The debate. *Public School Review*. Retrieved from <http://www.publicschoolreview.com/articles/304>
- Cochran-Smith, M., & Zeichner, K. M. (2005). *Studying teacher education: The report of the AREA panel on research and teacher education*. Mahwah, NJ: Lawrence Erlbaum Associates.

- Common Core State Standards Initiative. (n.d.). *Read the standards*. Retrieved from <http://www.corestandards.org/read-the-standards/>.
- Common Sense Media. (2009, June 18). 35% of teens admit to using cell phones to cheat. *Common Sense Media*. Retrieved from <https://www.commonsensemedia.org/about-us/news/press-releases/35-of-teens-admit-to-using-cell-phones-to-cheat>
- Cremin, L. (1961). *The transformation of the school: Progressives in American education 1876–1957*. New York: Vintage Books.
- Cuban, L. (2012, February 4). Ungraded school past and present (Part 2). *Larry Cuban on Classroom on School Reform and Classroom Practice*. Retrieved from <http://larrycuban.wordpress.com/2012/02/04/ungraded-schools-past-and-present-part-2/>
- Cubberley, E. P. (1902). *The history of education: Educational practice and progress considered as a phase of development and spread of western civilization*. Boston, MA: Houghton Mifflin.
- Darling-Hammond, L. (2007). *Recruiting and retaining teachers: What matters most and what can government do?* Retrieved from http://nea.querymaster.org/source_documents/darling_hammond_1.pdf.
- Davis, M. (2015, September 11). Online credit recovery in need of improvement, report says. *Education Week*. Retrieved from http://blogs.edweek.org/edweek/DigitalEducation/2015/09/online_credit_recovery_needs_t.html
- Dennis, D. V., Kroeger, D. C., O’Byrne, W. I., Meyer, C. K., Kletzein, S. B., Huddleston, A. P., & Gilrane, C. (2012). *Test-based grade retention*. (Policy Brief). Retrieved from:

<http://www.literacyresearchassociation.org/publications/LRA TestBasedRetentionPBFinal.pdf>

Deschenes, S., Tyack, D., & Cuban, L. (2001). Mismatch: Historical perspectives on schools and students who don't fit them. *Teachers College Record*, 103(4), 525–547.

Dong, Y. (2010). Kept back to get ahead? Kindergarten retention and academic performance. *European Economic Review*, 54(2), 219–236.

Dubois, W. E. B. & Provenzo, E. F. 2002. *Du Bois on Education*. Lanham, MD: Rowman & Littlefield.

Duffy, H. (2007). *Meeting the needs of significantly struggling*. Retrieved from Response to Intervention website: https://rti4success.org/sites/default/files/high_school.pdf

Educational Commission of the States. (2005). *Student promotion/retention policies*. Retrieved from <http://www.ecs.org/clearinghouse/65/51/6551.pdf>

Educational Commission of the States. (2011). *Recent state policies/activities students—promotion/retention*. Retrieved from

<http://www.ecs.org/ecs/ecscat.nsf/WebTopicView?OpenView&count=-1&RestrictToCategory=Students--Promotion/Retention>

Edwards, C. J., Carr, S., & Siegel, W. (2006). Influences of experiences and training on effective teaching practices to meet the needs of diverse learners in schools. *Education*, 126(3), 580–590.

Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.

Erikson, E. H. (1980). *Identity and the life cycle*. New York, NY: Norton.

Fanguy, J., & Mathis, R. D. (2012). Psychosocial fallout from grade retention: Implications for educators. *Delta Journal of Education*, 2(2), 69–82.

- Finn, C. (2008). *Troublemaker: A personal history of school reform since Sputnik*. Princeton, NJ: Princeton University Press.
- Fischel, W. (2010). Neither “creatures of the state” nor “accidents of geography”: The creation of American public school districts in the twentieth century. *University of Chicago Law Review*, 77(1), 177–199.
- Fitzgerald, J. (2011). First tenured Black professor at Harvard Law dies. *Yahoo! News*. Accessed September 9, 2016. <https://www.yahoo.com/news/1st-tenured-black-professor-harvard-law-dies-194952120.html>
- Fletcher, J. D. (2009). Education and training technology in the military. *Science*, 323(5910), 72–75.
- Florida Department of Education. (2008a). *Florida’s differentiated accountability model: Guidance for implementation 2008–09 school year*. Retrieved from Florida Department of Education website: www.fldoe.org
- Florida Department of Education. (2008b). *School accountability reports*. Retrieved from Florida Department of Education website: <http://schoolgrades.fldoe.org/default.asp?report=AYP>
- Frey, N. (2005). Retention, social promotion, and academic redshirting: What do we know and need to know. *Remedial and Special Education*, 26, 322–326.
- Fruehwirth, J. C., Navarro, S., & Takahashi, Y. (2016, October). How the timing of grade retention affects outcomes: Identification and estimation of time-varying treatment effects. *Journal of Labor Economics*, 34(4), 979–1021. Retrieved from The University of Chicago Press Journals website: <https://www.journals.uchicago.edu/doi/10.1086/686262>
- Fuchs, D., & Deshler, D. D. (2007). What we need to know about responsiveness to intervention (and shouldn’t be afraid to ask). *Learning Disabilities Research & Practice*, 22, 129–136.

- Good, T. L. & Brophy, J. E. (2007) *Looking in Classrooms* (10th ed.). New York: Allyn & Bacon.
- Goularte, R. (1998). Components of a successful multiage classroom. *Share2Learn*. Retrieved from <http://www.share2learn.com/components.html>
- Gouwens, J. A. (2009). *Education in crisis: A reference handbook*. Santa Barbara, CA: ABC-CLIO, LLC.
- Governing the States and Localities. (2018). Education spending per student by state. Retrieved from <http://www.governing.com/gov-data/education-data/state-education-spending-per-pupil-data.html>
- Grissom, J. B., & Shepard, L. A. (1989). Repeating and dropping out of school. In L. A. Shepard and M. L. Smith (Eds.), *Flunking grades: Research and policies on retention* (pp. 34–57). London: The Falmer Press.
- Guralnick, M (Ed.). (2000). *Early childhood inclusion: Focus on change*. Baltimore: Brookes.
- Guralnick, M. (2004). Effectiveness of early intervention for vulnerable children; a developmental perspective. In M. A. Feldman (Ed.) *Early intervention: The essential reader* (pp. 9–50). Oxford: Blackwell.
- Hauser, R. M., Frederick, C. B., & Andrew, M. (2005, February). *Grade retention in the age of accountability*. Paper presented at the “Will standard-based reform in education help close the poverty gap?” conference at the University of Wisconsin-Madison, Madison, WI. Retrieved from https://www.ssc.wisc.edu/~hauser/HFA_RetentionAnalysis_021306a.pdf
- Heubert, J. P. (2003). First, do no harm. *Educational Leadership*, 60(4), 26-30. Retrieved from <https://eric.ed.gov/?id=EJ659148>

- Heubert, J. P., & Hauser, R. M. (1999). *High stakes: Testing for tracking, promotion, and graduation*. A report of the National Research Council. Washington, D.C: National Academy Press.
- Hewitt, T. W. (2008, April). Speculations on a nation at risk: Illusions and realities. *Phi Delta Kappan*, 89(18), 575–579.
- Higginbotham, D (Ed.). (2001). *George Washington reconsidered*. The University Press of Virginia.
- Hoffman, J. (2003). Multiage teachers' beliefs and practices. *Journal of Research in Childhood Education*, 18, 5–17.
- Hojnoski, R L., & Wood, B. K. (2012). Challenging behavior and early academic skill development: An integrated approach to early intervention. *Young Exceptional Children*, 15(29). Retrieved from. <http://yec.sagepub.com.ezproxy.hacc.edu/content/15/4/29>
- Horace Mann. *Biography*. Retrieved from <http://www.biography.com/people/horace-mann-9397522#the-educational-reform-movement-begins>
- Hout, M., & Elliott, S. W. (Eds.). (2011). *Incentives and test-based accountability in education*. Washington, DC: National Academies Press.
- Huddleston, A.P. (2014). Achievement at whose expense? A literature review of test-based grade retention policies in U.S. schools. *Education Policy Analysis Archives*, 22(18), 1–34. Retrieved from <http://dx.doi.org/10.14507/epaa.v12n18.2014>
- John Dewey. (n.d.). *Biography*. Retrieved from <http://www.biography.com/people/john-dewey-9273497>
- Kern, L., DuPaul, G. J., Volpe, R. J., Sokol, N.G., Lutz, J.G., Arbolino, A., & VanBrakle, J. D. (2007). Multisetting assessment-based intervention for young children at risk for

- attention deficit hyperactivity disorder: Initial effects on academic and behavioral functioning. *School Psychology Review*, 36, 237–255.
- Kilkenny, A. 2013. Teachers, parents complain overcrowding, lack of support plague “welcoming schools.” *The Nation*, 12(9), 2. Accessed June 3, 2014.
<http://www.thenation.com/blog/177515/teachers-parents-complain-overcrowding-lack-support-plague-welcoming-schools#>
- Kirsch, Z. (2017, May 23). The new diploma mills. *Slate*. Retrieved from
http://www.slate.com/articles/news_and_politics/schooled/2017/05/u_s_high_schools_may_be_over_relying_on_online_credit_recovery_to_boost.html
- Klein, Alyson. (2015, April 10). No child left behind: An overview. *Education Week*. Accessed September 9, 2016. <http://www.edweek.org/ew/section/multimedia/no-child-left-behind-overview-definition-summary.html>
- Kridel, C. (2010). *Encyclopedia of curriculum studies, volume 1*. Thousand Oaks, CA: Sage Publications.
- Kuczynski-Brown, A. 2012. New York class size: Nearly half of public schools have overcrowded classrooms, UFT says. *The Huffington Post*, September 26, 2012. Accessed September 9, 2016. http://www.huffingtonpost.com/2012/09/26/new-york-class-size-uft_n_1914357.html.
- Laitsch, D. (2006). Assessment, high stakes, and alternative visions: Appropriate use of the right tools to leverage improvement. Education Policy Research Unit.
- Lau, S. M. C., Juby-Smith, B., & Desbiens, I. (2017) Translanguaging for transgressive praxis: Promoting critical literacy in a multiage bilingual classroom, *Critical Inquiry in Language Studies*, 14, 99–127. doi: [10.1080/15427587.2016.1242371](https://doi.org/10.1080/15427587.2016.1242371)

- Lauer, P. (2000). Instructional practices and implementation issues in multiage classrooms. Retrieved from ERIC database. [ED450099].
- Levin, H. M. (2009). The economic payoff to investing in educational justice. *Educational Researcher*, 38(1), 5–20.
- Light, R. J. (2008). *Making the most of college: Students speak their minds*. Campbell, CA: Paw Prints.
- Logue, M. E. (2006). Teachers observe to learn: Differences in social behavior of toddlers and preschoolers in same-age and multiage groupings. *Young Children*, 61(3), 70–76.
- Lynch, M. (2012). *It's time for a change: School reform for the next decade*. Lanham, MD: R & L Education.
- Lynch, M. (2013). Alternatives to social promotion and retention. *Interchange*, 44(3–4), 291–309. Retrieved from <http://dx.doi.org/10.1007/s10780-014-9213-7>
- Lynch, M. (2014). The true costs of social promotion and retention. *International Journal of Progressive Education*, 10(3), 6–17. Retrieved from <http://inased.org/v10n3/ijpev10n3.pdf>
- Lynch, M. (2017). *Understanding Key Education Issues: How We Got Here and Where We Go from Here*. New York, New York: Routledge.
- Marsh, J. A., Gershwin, D., Kirby, S. N., & Xia, N. (2009). *Retaining students in grade: Lessons learned regarding policy design and implementation*. (Technical Report No. 677). Retrieved from RAND Education website: http://www.rand.org/pubs/technical_reports/2009/RAND_TR677.pdf
- Martinez-Garcia, C., & Slate, J. R. (2009). *Teacher turnover: A conceptual analysis*. Retrieved from <http://cnx.org/content/m18916/latest/>.

- Marzano, R. & Kendall, J. (2008). *Designing and assessing educational objectives: Applying the new taxonomy*. Thousand Oaks, CA: Corwin Press.
- Mason, D. A., & Burns, R. B. (1996). “Simply no worse, and simply no better” may simply be wrong: A critique of Veenman’s conclusion about multigrade classes. *Review of Educational Research*, 66, 307–322.
- Mason, D., & Burns, R. (1997). Reassessing the effects of combination classes. *Educational Research and Evaluation*, 3(1), 1–53.
- Mathewson, T. G. (2018). Rethinking grade levels and school design for personalized learning. The Hechinger Report. Retrieved from <https://hechingerreport.org/rethinking-grade-levels-school-design-personalized-learning/>
- McNeil, L. (2000). *Contradictions of school reform: Educational costs of standardized testing*. New York, NY: Routledge.
- McNeil, L. M. (2005). Faking equality: High-stakes testing and the education of Latino youth. In A. Valenzuela (Ed.), *Leaving children behind: How “Texas style” accountability fails Latino youth* (pp. 57–111). New York: State University of New York Press.
- Melliger, S. R. (2005). Our long, winding road to multiage classrooms. *School Administrator*, 62(3), 24–25.
- Moir, E. (2012). *From disillusionment to rejuvenation: An inspiring story from a first-year teacher*. Retrieved from the New Teacher Center website: <https://jntp.org/blog/disillusionment-rejuvenation-inspiring-story-first-year-teacher>
- Moore, K.D. (2008). *Effective instructional strategies: From theory to practice*. Thousand Oaks, CA: Sage Publications.

Mulryan-Kyne, C. (2007). The preparation of teachers for multigrade teaching. *Teaching and Teacher Education*, 23(4), 501–514.

National Assessment of Education Progress. 2013. *Achievement Gaps*. Accessed June 8, 2014.
<http://nces.ed.gov/nationsreportcard/studies/gaps/>

National Commission on Excellence in Education. 1983. *A Nation at Risk: The Imperative for Educational Reform*. Arlington, VI: Eric Document Reproduction Service.

National Council for Accreditation of Teacher Education, NCATE. (2008). *Professional standards for the accreditation of teacher preparation institutions*. Washington, DC: NCATE.

Oakes, J. (2005). *Keeping track: How schools structure inequality*. New Haven, CT: Yale University Press.

O’Leary, M., Darina, S., Anastasios, K., & Vasiliki, P. (2018, June). The state-of-the-art in digital technology-based assessment. *European Journal of Education, Research, Development, and Policy*. 52, 160–175. Retrieved from the Wiley Online Library website: <https://onlinelibrary.wiley.com/doi/abs/10.1111/ejed.12271>

Oliva, P. F. (2008). *Developing the curriculum* (7th ed.). Boston, MA: Allyn & Bacon.

Ong, W., Allison, J., & Haladyna, T. M. (2000). Student achievement of 3rd-graders in comparable single-age and multiage classrooms. *Journal of Research in Childhood Education*, 14(2), 205–215.

Ornstein, A. C. & Levine, D. U. (2008). *Foundations of education* (10th ed.). Boston, MA: Houghton Mifflin Company.

- Osgood, R. (1997). Undermining the common school ideal: Intermediate schools and ungraded classes in Boston, 1838–1900. *History of Education Quarterly*, 37, 375–398.
- Owings, W., & Magliaro, S. (1998). Grade retention: A history of failure. *Educational Leadership*, 56(1), 86–88.
- Pangle, S. L., & Pangle, T. L. (2000). What the American founders have to teach us about schooling for democratic citizenship. In L. M. McDonnell, P. M. Timpane, & R. Benjamin (Eds.), *Rediscovering the democratic purposes of education* (pp. 21–46). Lawrence, KS: University Press of Kansas.
- Paul, R. (2004). *The state of critical thinking today*. Retrieved from The Foundation for Critical Thinking website: <http://www.criticalthinking.org/pages/the-state-of-critical-thinking-today/523>
- Paul, R., & Elder, L. (2012). *Critical thinking: Tools for taking charge of your learning & your life* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.
- PBS, n.d. “Africans in America.” Accessed June 3, 2014.
<http://www.pbs.org/wgbh/aia/part4/4h2945.html>.
- Pedulla, J. J., Abrams, L. M., Madaus, G. F., Russell, M. K., Ramos, M. A., & Miao, J. (2003). Perceived effects of state-mandated testing programs on teaching and learning: Findings from a national survey of teachers.
- Penfield, R. D. (2010). Test-based retention: Does it stand up to professional standards for fair and appropriate test use. *Educational Researcher*, 39(2), 110–119.
- Peters, G., & Woolley, J. T. (n.d.). George Washington: “First annual address to Congress,” January 8, 1790. Retrieved from The American Presidency Project website:
<http://www.presidency.ucsb.edu/ws/index.php?pid=29431>

Popham, W. J. (2010). *Everything school leaders need to know about assessment*. New York, NY: Corwin Press.

Powell, W. W., & Snellman K. (2004). The knowledge economy. *Annual Review of Sociology*, 30, 199–220. Retrieved from

http://www.stanford.edu/group/song/papers/powell_snellman.pdf

Questia. 2014. “History of African-American Education.” Accessed June 2, 2014.

<http://www.questia.com/library/education/education-in-different-countries-and-states/history-of-african-american-education>.

Regan, S. (2013, December 26). TFA training left teacher unprepared for troubled school’s behavior issues. *Twin Cities Daily Planet*. Retrieved from

<http://www.tcdailyplanet.net/news/2013/10/26/tfa-training-left-teacher-unprepared-troubled-schools-behavior-issues>

Reese, W. (2007). *The origins of academic standards and promotion policies in the public schools*. Retrieved from the Wisconsin Center for Education Research website

<http://itp.wceruw.org/Spring%2008%20seminar/Spencerfinalreport.07.pdf>

Reschly, A. L., & Christensen, S. L. (2013). Grade retention: Historical perspectives and new research. *Journal of School Psychology*, 51(3), 319–322.

Reynolds, A. J. (2000). *Success in early intervention*. Lincoln, NE: University of Nebraska.

Rose, S., & Schmike, K. (2012). Third-grade literacy policies: Identification, intervention, retention. *Report of the Education Commission of the States*. Retrieved from ERIC

website: <https://files.eric.ed.gov/fulltext/ED535949.pdf>

Rothstein, R., Jacobsen, R., & Wilder, T. (2008). *Grading education: Getting accountability right*. New York, NY: Teachers College Press.

- Salend, S. J. (2005). *Classroom testing and assessment for ALL students: Beyond standardization*. New York, NY: Corwin Press.
- Schwerdt, G., West, M. R., & Winters, M. A. (2017). The effects of test-based retention on student outcomes over time: Regression discontinuity evidence from Florida. *Journal of Public Economics*, *152*, 154–169
- Skapski, M. K. (1960). Ungraded primary reading program: An objective evaluation. *Elementary School Journal*, *61*, 41–45
- Song, R., Spradlin, T. E., & Plucker, J. A. (2009). Advantages and disadvantages of multiage classrooms in the era of the NCLB accountability. *Education Policy Brief*, *7*(1), 1–8.
- Spivey, B. L. (n.d.) What are developmental domains? Retrieved from http://www.handyhandouts.com/viewHandout.aspx?hh_number=358&nfp_title=What
- Spring, J. (1994). *The American School 1642–1992*. New York: McGraw-Hill.
- Spring, J. 2009. *American Education* (14th ed). New York: McGraw-Hill.
- Stiggins, R. J. (2004). *Classroom assessment for student learning: Doing it right*. New York, NY: Prentice Hall.
- Stiggins, R. (2005). *Student-involved assessment for learning* (4th ed). Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.
- Stone, S. (1994) Teaching strategies: Strategies for teaching children in multiage classrooms, *Childhood Education*, *71*, 102–105, doi: [10.1080/00094056.1995.10522590](https://doi.org/10.1080/00094056.1995.10522590)
- Stone, S. (2004). *Creating the multiage classroom*. Glenview, IL: Good Year Book.
- Stone, S., & Engel, M. (2007). Same old, same old? Students' experiences with grade retention under Chicago's ending social promotion policy. *American Journal of Education*, *113*(4), 605–634.

- Stone, S., & Rodger, E. B. (2005). Multiage education: A conversation with parents. *Journal of Multiage Education*, 1(2), 9–12. (Association of Australian Multiage Educators)
- Stronge, J.H. (2007). *Qualities of effective teachers* (2nd ed.). Alexandria, VA: ASCD.
- Strauss, V. (2012). One teen's standardized testing horror story (and where it will lead). Retrieved from https://www.washingtonpost.com/news/answer-sheet/wp/2012/11/09/one-teens-standardized-testing-horror-story-and-where-it-will-ead/?utm_term=.1d2a8e959f93
- Suski, L. A. (2009). *Assessing student learning: A common sense guide*, (2nd ed.) San Francisco, CA: John Wiley & Sons.
- Swanson, C. B., & Stevenson, D. L. (2002). Standards-based reform in practice: Evidence on state policy and classroom instruction from the NAEP state assessments. *Educational evaluation and policy analysis*, 24(1), 1–27.
- The National Commission on Excellence in Education. (1983). *A Nation at Risk: The Imperative for Educational Reform*. Arlington, VI: ERIC Document Reproduction Service.
- Tingle, L. R., Schoeneberger, J., & Algozzine, B. (2012). Does grade retention make a difference? *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 85, 179–185, doi: [10.1080/00098655.2012.679325](https://doi.org/10.1080/00098655.2012.679325)
- Torff, B. (2018). Teaching critical thinking: Content integration, domain-specificity, and equity. In J. Keengwe, & R. Byamukama (Eds.), *Handbook of Research on Promoting Higher-Order Skills and Global Competencies in Life and Work* (pp. 22–36). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-6331-0.ch002
- Tyack, D. (1974). *The one best system: A history of urban education*. Cambridge, Massachusetts: Harvard University Press.

- Tyack, D., & Cuban, L. (1995). *Tinkering toward utopia*. Cambridge, Massachusetts: Harvard University Press.
- Underwood, K. (2012). Mapping the early intervention system in Ontario, Canada. *International Journal of Special Education*, 27(2), 126–135. Retrieved from <http://files.eric.ed.gov/fulltext/EJ982867.pdf>
- Urban, W., & Wagoner, J. (2009). *American education: A history*. New York: Routledge.
- U.S. Department of Education [USDOE]. (1999). *Taking responsibility for ending social promotion: A guide for educators and state and local leaders*. Retrieved from <https://files.eric.ed.gov/fulltext/ED430319.pdf>
- USDOE. (n.d.). Every Student Succeeds Act (ESSA). Retrieved from <https://www.ed.gov/esea>
- Veenman, S. (1995). Cognitive and noncognitive effects of multigrade and multi-age classes: A best-evidence synthesis. *Review of Educational Research*, 65(4), 319–381.
- Veenman, S. (1996). Effects of multigrade and multi-age classes reconsidered. *Review of Educational Research*, 66(3), 323–340.
- Virginia Historical Society. n.d. *Beginnings of Black Education*. Accessed June 3, 2013. <http://www.vahistorical.org/collections-and-resources/virginia-history-explorer/civil-rights-movement-virginia/beginnings-black?legacy=true>
- Virtual Instruction to Accentuate Learning. (n.d.). Retrieved from <http://vital.pcsstn.com/>
- Warren, J.R., Hoffman, E. & Andrew, M. (2014). Patterns and trends in grade retention rates in the United States, 1995–2010. *Educational Researcher*, 4(9), 433–443.
- Warren, J. R., & Saliba, J. (2014) First- through eighth-grade retention rates for all 50 states: A new method and initial results. *Educational Researcher*, 41(8), 320–329. doi: 10.3102/0013189x12457813.

- Washington, G. (n.d.). Washington's farewell address: Delivered to Congress on September 19, 1796. Lanston Monotype Machine Company. Retrieved from <https://archive.org/details/washingtonsfarew00washrich/page/n1>
- West, M. R. (2012). Is retaining students in the early grades self-defeating (CCF Brief No. 49). Retrieved from Brookings Institution, Center on Children and Families [CCF] website: <https://www.brookings.edu/research/is-retaining-students-in-the-early-grades-self-defeating/>
- Williams, D. L. (2007). Perspectives of urban parents towards student grade retention in schools. *Dissertation Abstracts International*, 69, 59–60.
- Wright, H. K., & Alenuma, S. (2007). Race, urban schools, and educational reform: The context, utility, pros, and cons of the magnet example. In Kincheloe, J. L., & Hayes, K. (Eds.). *Teaching city kids: Understanding and appreciating them*. New York, NY. Peter Lang Publishing.
- Wright, R. J. (2008). *Educational assessment: Tests and measurements in the age of accountability*. Los Angeles, CA: Sage Publications.
- Xia, N., & Kirby, S. N. (2009). *Retaining students in grade: A literature review of the effects of retention on students' academic and nonacademic outcomes*. Santa Monica, CA: RAND Corporation.
- Yates, R. (2004). Nuts and bolts: What is multiage? Retrieved from Multiage-Education.com website: <http://www.multiage-education.com/index.html>
- Zhao, Yong. 2009. Catching up or leading the way: American education in the age of globalization. Alexandria, VA: ASCD.