The Crisis in Education Theory

Rafi Eis

To understand the crisis in American K-12 education, one need only consider two contemporary trends. First, high-school graduation rates are increasing. In the 2016-17 academic year, the graduation rate for public-school students who entered ninth grade four years prior was 84%, up from 79% in 2010-11. Second, student achievement levels have stalled. The National Assessment of Educational Progress, commonly called the “Nation’s Report Card,” records that math achievement has plateaued in the last decade, while reading levels have dipped slightly since NAEP testing began in 1992. Currently, just 40% of 12th graders are ready for college-level reading, and only 25% are prepared for college-level math.

The contradiction in these two trends explains the difficulties that high-school graduates face when they matriculate at a college or university. About 69% of high-school graduates will enroll in college, but only 40% of them will earn a degree four years later. Or put in different terms, only 27% of high-school graduates earn a college degree within four years. Even with an additional two years for supplementary education and maturity, less than 60% of college enrollees, or 40% of high-school graduates, will earn their bachelor’s degrees. In effect, high schools have managed to raise their graduation rates without much of an increase in student knowledge or long-term academic success.

An honest assessment of the data on student achievement leads to an unavoidable conclusion: Many states have lowered the standards for graduation at K-12 schools, stunting their students’ academic progress and setting them up for failure once they reach the college level. This dilution of standards has greatly contributed to the education crisis that is causing U.S. students to fall behind their peers in many other advanced industrial nations.

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At the root of this crisis is the theory of education that undergirds the entire U.S. education system: Known as Differentiated Instruction (DI), Universal Design for Learning (UDL), or differentiation, it is the primary instructional approach directing K-12 education in the United States. Differentiation aims to “meet students where they are,” adjusting curricula and teaching methods to account for each child’s learning style and perceived needs, in order to set each student up to succeed in the classroom and graduate from high school.

Such curricular adjustments are not left to the discretion of teachers in their classrooms, or even to the discretion of school leaders; they are often imposed across school districts and even at the state level. In many states, students no longer need to pass standardized tests in order to graduate high school. To use the jargon of differentiation, states now graduate “students not standards,” adjusting the educational “product” and “process” to the students’ needs.

In one sense, it is hard to disagree with the goals of DI. Every student has a unique combination of strengths and weaknesses, talents, interests, cultural upbringing, and academic history, and in any given lesson, students will struggle in different ways. We want as many children as possible to succeed in their learning, and teachers want to help their students do this. Differentiation sounds and feels like it should enable more student learning by acknowledging the diversity in classrooms and making them more inclusive. And it has resulted in more students receiving diplomas and the potential economic benefits that they promise.

It is also important to note that differentiation was originally advocated as a teaching method for students with diagnosed learning disabilities. And DI can certainly still benefit these students and others in especially difficult circumstances. But as a normative educational strategy, differentiation suffers from serious flaws. Research and data trends suggest that DI methods do not improve student achievement and outcomes, leaving students unprepared to face the rigors of college and their future careers. And by protecting students from adversity and the difficulties of mastering several skills at once, differentiation can prevent them from developing the courage and resolve necessary to meet the social and emotional challenges that life inevitably brings.

Conservative responses to the crisis in student achievement tend to focus on school choice. But while charter schools and vouchers have certainly created more options and opportunities for student success, they
do not grapple with the deficiencies in K-12 education in a systematic fashion. If conservative reformers want to ensure that students are prepared to thrive on campus and in the workplace, they must start at the level of how teachers are trained and address the flawed theory behind that training. And they must advocate their own theory that will lead to fewer broken dreams and more lives of flourishing.

**STUDENT OUTCOMES**

The main proponents of DI are progressive educators, whose dominance of the American education system—from graduate schools to teachers’ unions—accounts for the pervasiveness of the method.

Carol Ann Tomlinson, a professor at the University of Virginia and differentiation’s most prominent theoretician, has been promoting DI since 1995 in articles, books, and conferences, contributing to its widespread adoption throughout the United States. She describes differentiation as student-centered learning: Teachers systematically change the educational content, process, or product to align with a student’s readiness, interests, and learning profile. In other words, teachers design personalized assignments to match each student’s profile. One student might read a science-fiction novel, for example, while another reads Jane Austen’s *Sense and Sensibility*, and yet another listens to an audiobook. And their assignments will also differ: One student will write a paper while another paints an artistic portrayal of a scene in the book. Instead of being forced to take a rigorous and cumulative final exam, students can submit a portfolio of their best work.

New Jersey’s “portfolio appeal” system illustrates the impact of differentiation. For students at the state’s public high schools, the final requirement before receiving a diploma is passing a mandatory exit exam. If students fail this test, the state also offers an easier and untimed alternative exam; these tests can be taken multiple times. Nevertheless, almost half the students who complete 12th grade in Camden’s public schools cannot pass either state assessment. Instead, these students graduate using the third option: a state-approved appeal process. This avenue requires the student to submit a portfolio of examples of his work for review by a special committee. These examples can include teacher-graded math assignments and marked-up essays. Before submission, a teacher will typically review the student’s portfolio and recommend changes. It is almost guaranteed that the student will receive a diploma, as it
is extremely rare for the committee to deny an appeal. Even if a New Jersey student failed or earned poor marks on the majority of his school assignments, he can select his best work and submit that as illustrative of his actual learning.

Alabama, too, has lowered graduation standards since adopting DI. Tommy Bice, former state superintendent, has said that Alabama now has “a new level of flexibility that’s led to locally tailored programs.” But in reality, the state has simply lowered its education requirements. In fact, Alabama was subsequently found to have artificially inflated its graduation rate, which rose more than 15 percentage points in four years, by including students who received credit for courses that did not meet the state’s criteria.

Differentiation proponents claim that their instructional method is the most conducive to student learning and success. But recent research suggests that DI does not necessarily lead to better educational results, and may even impede student success. A three-year meta-analysis of literature, completed by education researcher Matthew James Capp and published in 2017, concludes that, while differentiation might smooth out the edges of the learning process for more students, it has not demonstrated its effectiveness in terms of education outcomes. These studies should inspire DI promoters to rethink an approach that has resulted in the mass restructuring of classrooms in the past quarter-century. As an indication of how pervasive differentiation has become in the U.S. education system, a search for “differentiation” on the Association for Supervision and Curriculum Development website returned close to 18,000 results.

Tomlinson has grounded her claims for the success of differentiation in terms of student readiness, student interest and engagement, and classroom management—but noticeably not in terms of learning. Small-scale studies or anecdotes are frequently cited in support of differentiation’s academic successes, but we now have a large-scale study, and its conclusion is that DI does not measurably improve student outcomes. Instead, differentiation requires teachers to devote precious time toward creating numerous assignments that won’t boost student achievement.

Not only does differentiation not improve education, but it might even hinder students’ academic development. The 2012 Programme for International Student Assessment (PISA), a test taken by half a million students in 65 countries and run by the Organization for Economic Cooperation and Development, highlights a negative correlation
between success in math and DI classrooms. Countries that differentiate more perform worse on the OECD math exam. In a differentiated classroom, students receive assignments specific to them on which they are more likely to earn passing and possibly superior grades, which leads them to believe they are properly progressing in their learning. In contrast, students in an undifferentiated setting, who are expected to complete the same work as their peers, end up learning more.

DEFECTIVE THEORY

To understand why DI does not improve academic achievement, it is necessary to consider its faulty underlying theory. Differentiation’s ultimate goal — “meeting students where they are” — is pursued by evaluating three criteria. The first is student readiness. In each classroom, due to students’ differing educational backgrounds, some are academically ready to begin the new unit of learning while others are not. To accommodate the students unable to begin the new lesson, the theory of differentiation directs the teacher to adjust the assignments for those students. A second charge of differentiation is to cater to each student’s interests and provide choice, which is supposed to incentivize the student and harness his motivation.

The final criteria for a differentiated assignment is that it match the student’s learning profile. This profile is built using several elements, including Howard Gardner’s Multiple Intelligences theory. Gardner, a developmental psychologist at the Harvard Graduate School of Education, proposes eight modalities of human aptitude: musical-rhythmic, visual-spatial, verbal-linguistic, logical-mathematical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic. A second element is the Intelligence Preference theory developed by Robert Sternberg, a professor of human development at Cornell University. He proposes that humans process and apply information in three possible ways: analytical, creative, and practical. The final components that determine a learning profile are the student’s gender and culture.

Students of course will differ from one another in their talents, weaknesses, and intellectual inclinations. The theory of differentiation insists that, after considering these criteria for each student, the teacher should adjust assignments according to their respective talents; the proper assignment will better enable student success because it will be tailored to each student’s readiness and strengths.
Yet each of the three components used for differentiating instruction—student readiness, student interest, and student profile—is flawed. If the teacher adjusts an assignment for student readiness by looking at a student’s present abilities and then moving him “slightly beyond where he can work without assistance,” as DI prescribes, then the teacher is in essence making the assignment easier.

Some differentiation advocates claim that such adjustments do not dilute schools’ curricula. But this contradicts the basic definition of matching student readiness. In practical terms, differentiating for a student who is not reading at grade level by giving him an easier book to read results in the student staying behind the grade expectation. The student who keeps to the adjusted track, even if moving at the required pace, gets locked into a path that keeps him behind. He does not have sufficient incentive or opportunity to accelerate and catch up to curricular expectations.

This desire to teach a student “slightly beyond” his current knowledge can lead to a student falling even further behind. A teacher rarely actually knows the internal processing of a student. Every time a student puts in effort but does not master the material, the teacher does not know whether the student’s failures stem from academic shortcomings or from a lack of focus, time, or work ethic. When a student claims that he tried his hardest—which as any teacher or parent knows is a common refrain—it’s entirely possible that he did not. It cannot be readily determined whether the material was somewhat beyond the student’s present knowledge or simply too far out of reach. Thus, when the teacher adjusts the assignment to make it easier to account for student readiness (or to match the student’s learning profile), the student learns to desire the less stressful assignment and avoid extra exertion. While student success is basically guaranteed, and the gap between actual and potential is initially small, the cumulative impact after years of differentiated courses is quite large, and the student falls further behind.

Differentiation’s second directive to give students choices and accommodate their interests can in fact lead to improved achievement, if used properly. In general, however, the evidence is mixed: Some studies have highlighted the effectiveness of student choice while others have concluded otherwise. Student engagement, motivation, and ownership of their learning can carry them through some of their initial challenges, but that motivation and excitement can peter out as students encounter
hurdles over the longer term. Beyond that, giving students too much control over their learning requires them to choose their educational path based on undeveloped perceptions of knowledge, experience, and aspirations, and without an understanding of the long-term consequences of not learning necessary skills.

The final consideration when creating a differentiated assignment—the use of a student’s learning profile—has also not proven successful. In a large education study, researchers found that employing Gardner’s Multiple Intelligences theory of teaching individual students in their dominant mode of thinking (which Gardner never advocated on a practical level) does not confer a learning advantage to students. This is because each discipline has its own mode of thinking. For instance, proclaiming the beauty of a parabola does not help one solve for “x”; students must understand mathematical thinking on its own terms. Similarly, while a student with strong quantitative skills may find some value in seeing patterns of rhyme and alliteration in a Shakespearean sonnet, full appreciation of poetry also involves internalizing metaphor and the flow of language. These disciplines cannot be adapted to one another, and they need to be understood through their internal modes of thinking. The job of a teacher is to help students cultivate these various methods of cognition and discover the possible resources of awareness and understanding within themselves.

When differentiation directs teachers to lower standards in order to meet students where they are, students are inherently learning less than the regular curriculum requires; the only question, therefore, is whether the student would have learned more if no adjustment had been made. This type of differentiation stunts academic growth. Take, for example, constructivist or inquiry-based learning. Instead of the teacher lecturing and modeling the material to students, then asking students to review the material and apply it, the teacher gives the students a project that allows them to research and learn the material themselves. The students’ curiosity and exploration enable the learning.

This seems like it should succeed: We expect inner motivation to facilitate meaningful learning. To determine whether it does work, the OECD’s 2015 PISA exam designed questions for both the standard method of teaching science and for the inquiry-based approach to science. Its report concluded that “greater exposure to enquiry-based instruction is negatively associated with science performance in 56
countries and economies.” Even more astounding is that students educated in the traditional approach outperformed the inquiry-trained students on the traditional science questions and on the questions designed to be friendlier to the inquiry-trained students. Not only does the inquiry-based educational approach reduce the ability to recall material (students are no longer expected to memorize), but it also leads to reduced success in application, even though the inquiry method is supposed to be driven by relevance and application.

Education methods designed around student learning profiles are deficient because they misunderstand the true nature of knowledge acquisition and life. When a student learns material only in a specific modality, he does not internalize the knowledge in order to use it at will; his knowledge of a concept is shaped by the way it is presented and learned. New Jersey’s graduation-appeal system mentioned above is similarly flawed. Cherry-picked tests and assignments demonstrate only that the student learned the knowledge at one moment in time, or that the questions that the student correctly answered were familiar enough to him. Regular grades and a final exam, by contrast, establish sustained learning. In life, knowledge needs to be used, adapted, and applied in a whole host of unanticipated ways and scenarios. Differentiation does not adequately prepare students to meet these multifarious challenges.

By reinforcing a specific way of thinking for each student, differentiation can also hinder a student’s ability to adapt to his future educational and employment situations. A person will obviously rely on his strengths over the course of his academic and professional career. Reality, however, will make unanticipated demands that require him to stretch, pivot, or adjust. This means that knowledge needs to be completely internalized, not understood in one specific way. Students need to stretch their minds in as many areas as possible. Most students will likely not be in the top tier of their chosen field, but a robust package of skills is more likely to give them a unique edge.

The 2015 PISA science exam results highlighted a deeper problem with differentiation: Teachers and students were not even aware of a learning shortfall until the latter’s abilities were compared to those in an undifferentiated learning setting. Too often, differentiation is judged against its own rules. Teachers claim it succeeds because their students do well on assignments that are tailor-made for them. Differentiation creates an
internal system that never looks outward, but it should really be compared to more widely accepted benchmarks to gauge actual learning.

These deficiencies of DI stem from a “scientific” approach, whereby teachers can “know” and “predict” the learning abilities of their students—as if the future is already determined. The mystery of children, however, is that they are a world unto themselves, with their own gifts and latent talents. Each person develops these talents at different rates and in different ways. Over the course of a lifetime, some talents will be developed and some won’t. Some students will acquire the skill of discipline, while others will lose their motivation. Some students learn slowly and then catch up quickly, or blossom later in life. Alternatively, some star students seem to plateau and do not reach the potential that educators initially envisioned. Some need to be pushed more, while others have more internal motivation and discipline. Some will go beyond the norm, make social sacrifices, and devote additional time and effort to learn. Differentiation rejects the student’s personal agency while arrogating to itself the right or wisdom to set limits on the mystery of human potential—a task traditionally reserved for God alone.

**Failure to Launch**

The 2017 Capp study cited above notes that differentiation makes the learning process easier for students. That may not be a positive outcome, however. The underlying philosophy of differentiation assumes that when a student is struggling to learn, primary responsibility falls to the teacher and curriculum to adjust. The student does not bear the responsibility to work harder, or think differently, to figure it out. In his book *The Vanishing American Adult*, Senator Ben Sasse describes the results of a student survey that was conducted during his time as a university president. In that survey “students overwhelmingly highlighted their desire for freedom from responsibilities.” While elements of American culture have always celebrated a carefree youth, the rigors of school and the ambition to succeed in the workforce traditionally provided a sense of personal responsibility. Today, however, schools promote this freedom from responsibility among students.

In differentiated classrooms, children become habituated to avoid learning challenges rather than overcome them. Jonathan Haidt and Greg Lukianoff in *The Coddling of the American Mind* warn of the negative consequences of such an approach by borrowing some terminology
from scholar Nassim Nicholas Taleb. Children, like muscles and bones, are neither “resilient” nor “fragile” but “antifragile.” They “require stressors and challenges in order to learn, adapt, and grow.” If students’ minds are unchallenged, they “become rigid, weak, and inefficient.” In other words, students need to work hard and experience some intellectual growing pains if they are to maximize their potential and learn the requisite skills. Differentiation thwarts this cognitive process.

Differentiation also stunts maturation by trying to relieve the many difficulties associated with adolescence. The emotional roller coaster that many children and teenagers experience distracts them from the critical focus and discipline that schoolwork requires. Some students also suffer from broken families and worse. Abuse victims are an exception who could benefit from a differentiated approach, as are students with diagnosed learning disabilities. But the regular experiences and drama of adolescence do not justify using differentiation to relieve student stress; if anything, it may prevent students from developing the ability to succeed professionally while navigating complex emotions as adults.

Differentiation further warps the regular demands of life by having the teacher shape reality to meet the student. Beginning around the year 2013, college campuses started promoting a culture of safety; instructors were directed to provide trigger warnings and safe spaces. It is important to note that these changes did not occur in a vacuum. While there are certainly other factors that enabled this intellectual and emotional failure to launch, the rise of DI in the previous decade conditioned these students to believe that it is the job of teachers and schools to adjust to their needs. Many areas in life are not so malleable, of course, and thus differentiation has given them a false sense of reality. Today’s students will change jobs and careers more often than their parents’ generation, and they will need to deal with the uncertainty caused by disruptive innovations eliminating some careers and creating new ones. They need to have a greater ability to adjust in bewildering situations. They require the grit and inner resolve to handle the unexpected and adapt.

Yet students today are not simply unprepared for their upcoming emotional challenges; they are not even aware of them. By promoting student choice as an essential component of the learning process, as opposed to teaching the responsibility that comes with choice, differentiation robs students of wisdom and maturity. Students get the impression that they themselves know best, and that adults do not have
much valuable advice to offer. DI’s emphasis on student autonomy ultimately undermines the value of authority in students’ eyes.

Beyond stunting academic progress and student maturation, differentiation also espouses some of the most divisive features of our current political environment—namely, postmodernism and identity politics. The underlying assumption of differentiation is that all students have the same ability to succeed. Proponents therefore believe that when equity of outcomes is not achieved, it must be because the educational system is structured in a way that is helpful to some students and detrimental to others. Differentiation seeks to remedy this institutionalized discrimination by changing the system. Given that each student has an area of relative talent, teachers should enable learning to occur in line with that student’s talent. With the right adjustment, a student who has strong language skills should perform just as well as the student who calculates more easily. As Rick Wormeli’s popular book *Fair Isn’t Always Equal* notes, “Differentiated instruction teachers do what’s fair.”

DI’s methods have certainly enabled and encouraged the creation of culturally diverse and intellectually inclusive classrooms. But by focusing exclusively on diversity, inclusion, identity politics, and equity of outcomes, schools ignore the real costs to students in terms of academic achievement and emotional development.

The influence of identity politics can also be observed in DI’s use of gender and culture as main ingredients to determine a student’s learning profile. While there certainly appear to be differences between the genders regarding professional interests, these are general trends that do not capture the inclinations of each student. By adjusting student learning to conform to stereotypes, differentiation tries to restrict the freedom of individuals to choose who they become.

**Inputs and Outputs**

Holding a high-school diploma correlates with a lifetime of higher salaries and better job opportunities, and differentiation enables more students to graduate. But assuming that a high-school diploma will automatically produce better economic prospects confuses correlation and causation. Graduation does not cause the higher salary; it is the knowledge and skills learned in high school that enable a student to succeed in the workforce and in college. A student with a diploma but without the necessary skills will lose the job or drop out of college.
In *Good to Great and the Social Sectors*, Jim Collins emphasizes that many organizations confuse inputs and outputs, and mistakenly judge success based on inputs. He offers two examples. Though the desired output of police work is less crime, some police departments use the input of closed cases as the metric of success. Likewise for a symphony: The output is a great musical performance, but its quality is too often judged by ticket sales, an input. The easiest way to define outputs is the desired lasting impact. Inputs are simply the ingredients that enable the creation of the output. Evaluating success should not be based primarily on inputs, but on whether the actual outputs match the intended ones.

Because schools are part of larger education, employment, and societal systems, a primary output of educational institutions is academic and social-emotional preparedness for a student’s next step, whether that be employment or another type of school. In a school, time is an input, as are students and teachers. Even homework and student choice are inputs, and we cannot judge success based on them. Of course, the proper inputs lead to the intended outputs, but determining the right amount and balance of inputs can be realized only when the desired output is clear; success or failure is measured by the quality of output, which is determined by the level of student preparedness.

Likewise, the inputs of time in school and credits earned correlate with educational success, but they do not determine the output of learning and preparation. In the current system, in order to graduate, all students invest the same amount of time in the classroom regardless of their level of achievement and how much they learn. The student who receives a C and the student who earns an A are awarded the same number of credits and are granted the same diploma.

Differentiation is an entire theory based exclusively on inputs: gender, culture, learning style, intelligence preference, and student engagement. Instead of meeting students where they are (inputs), as DI advises, the purpose of education should be to prepare students for where they need to be later in life (outputs). Education should prioritize a student’s future, not his present. Differentiation appeals to our sense of fairness by presenting itself as a student-centered response to the student’s present reality. Preparing students for future flourishing, however, is in truth far more student-centered and fair to them in the long run.

To adjust course, we can start by changing the way we talk about the goals of education. While the terms commonly used for student achievement
are “standards” and “benchmarks,” a better framework is “competencies”—skills students can perform independently. Students need to be competent in many areas in order to ensure future success: reading, writing, mathematics, civics, critical thinking, creativity, and collaboration, among others. The first five of these are relatively easy to define and measure, while others are less so. But this should not stop us from insisting that students acquire competencies to prepare them for future flourishing.

The solution to the crisis in education theory lies in moving away from differentiation’s focus on inputs like time and credit and toward efforts to improve outputs like these competencies. Instead of issuing diplomas based on time credits of learning, diplomas should acknowledge the competencies mastered. With the ubiquity of tablets and other personal computing devices and the growth of online learning, students can demonstrate their mastery individually without being tied to the teacher-assigned test, and can learn skills at their own pace. Whereas the current model has time as the constant and the grade as the variable, a better model would require the same grade of everyone, and give each student the time required to achieve it. All students would be required to earn an A in order to demonstrate proficiency of the skill, but some students would move faster and others slower.

This approach is called mastery learning, and Salman Khan’s book The One World Schoolhouse: Education Reimagined presents one iteration of how it could work. Certain knowledge and skills in every subject would need to be mastered by everyone, while other units would be pursued only by the individuals specializing in them. Mastery learning would allow the special talents of each student to be cultivated. Unlike differentiation—which adjusts based on weaknesses—a mastery model personalizes learning based on demonstrated success. Students would get to increase their specialization based on their mastery of the basics. Some students would earn the basic certificate, while others would specialize and excel. Such a model would obviously require a radical rethinking of our K-12 schools. But it is worth contemplating an education system in which the success of each student would be dependent upon his own ability, interest, effort, and ultimately achievement.

A BETTER THEORY OF EDUCATION

Americans have been concerned for decades about the state of public education, going at least as far back as A Nation at Risk, the landmark
1983 report by the Reagan administration’s National Commission on Excellence in Education. But conservative reformers, who are mostly on the outside looking in at a school system controlled by progressives, have been able to do little about the crisis because they don’t speak the language of the education field. The main conservative agenda for education improvement has been school choice through charter schools and vouchers. Breaking the monopoly on government-run schools has certainly improved education with increased competition and the efficiency that it breeds. The issue of school choice, however, is fundamentally an economic argument applied to the education industry, and it is therefore necessary but not sufficient to improve education.

Other conservatives have voiced opinions on curricular choices such as sex education or particular perspectives in the teaching of history, which do affect the lives, character, and worldview of future adults, but are ultimately symptoms of a larger problem. Conservatives have also debated the value of Common Core standards, but the arguments again revolve around the role of government in education. None of these conservative preoccupations have confronted in a systematic way what occurs in K-12 schools or the way teachers are trained.

Charles Murray, in his book *Real Education*, does attempt to look at the overall goals and approaches of education, and Senator Sasse grapples with internal educational theory in *The Vanishing Adult* by rejecting John Dewey’s progressive education agenda. These are important steps, but they do not acknowledge the depth of the problem. The place to start is with educator-training programs, which encourage future teachers to pursue the wrong goals. Teachers are instructed to prioritize student graduation and equality of outcomes—not real student achievement and the competencies that lead to future success. Educators and school leaders have subscribed to an education theory that misunderstands what their job actually is, and the result is inflated grades and meaningless diplomas that set their students up for failure. If conservative reformers want to improve our education system, they also need to reject differentiation and promote their own education theory. They can begin by insisting that students master the competencies that will best enable them to not only meet future challenges, but thrive.