

# REIMAGINING REMEDICATION

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*[To] address the success of academically under-prepared students ... colleges and universities must stop tinkering at the margins of institutional life, stop the tendency to take an "add-on" approach to institutional innovation, and adopt efforts that restructure the learning environments.*

Catherine Engstrom and Vincent Tinto (2009)

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In 2007, the College Board's Community College Advisory Panel—a group of college presidents that advises the organization's membership on community college issues—asked us to write a paper describing effective remedial education programs. The goal was to disseminate via the College Board's 5,000-plus member institutions a set of “best practices” that had been established as a result of—and this was key—rigorous and independent evaluation. As leaders of some of the most influential community colleges in the country, CCAP members understood the growing need to address what was evident on their own campuses: the increasing number of students entering college without basic skills.

We never wrote the paper. The problem was not the lack of dedicated faculty and staff working in this field but the absence of sustained and carefully calibrated research independently assessing the effectiveness of remedial education practices.

Since 2007 remedial education has gained increasing attention among powerful interests. Early in his administration, President Obama announced plans to devote significant resources to it; at the same time, philanthropic organizations such as the Lumina Foundation for Education and the Carnegie Foundation for the Advancement of Teaching began to pour millions of dollars into new strategies to prepare students for college more effectively. In addition, the Bill and Melinda Gates Foundation, long associated with high school reform, announced that it would devote \$110 million to fund improvements to remedial education in community colleges.

All of this, of course, is welcome news. But it will take the relentless support of government, foundations, and other like-minded (and well-financed) entities to clear our way through a morass of conflicting strategies, contradictory outcomes, and well-intentioned but as yet unproven pedagogies that comprise remedial education in America.

The despair over remedial education is both universal and seemingly eternal. Supporters lament that more resources are not devoted to an effort they see as essential to making higher education an authentic pathway to the middle class for students who have not been well served by the educational system. Over a decade ago, Alexander Astin concluded that “the education of the remedial student is the most important educational problem in America today.”

Meanwhile, detractors argue that remedial education is neither effective as pedagogy nor appropriate as social policy. Psychologist Lawrence Sternberg's opinion echoes that of others who see nothing good in offering it in college: “Providing remedial education ... to entering college students has trivialized the significance of the high school diploma, diminished the meaning of college admission, [and] eroded the value of a college degree.”

Still, both sides of the remediation debate agree on one thing: too many students need it, and not enough benefit from it.

## COSTS AND CAUSES

Although remedial education in college has been with us since the 1840s, remedial courses have become far more prevalent in the last 30 years, as the need for a better-educated workforce has become paramount and access to college has become more widely available in the United States. But with greater access has come broader variability in students' readiness for college-level work.

According to the US Department of Education, in 2000 over a quarter of entering students took at least one remedial course, although the percentage varies widely by type of college, from 20 percent of students in public four-year colleges to over 40 percent of new students at community colleges (at least one study estimates that over 60 percent of community college students need remedial assistance). The US Department of Education reports that 98 percent of public community colleges, 80 percent of public four-year colleges and universities, and 59 percent of private institutions offer remediation.

Estimates regarding the cost of remedial education to colleges and universities in the United States run anywhere between \$1 billion and \$2 billion per year. A recent report by Strong American Schools concluded that the direct cost to students and families, as measured in tuition and fees, was \$700 million annually.

Some argue that these resources, which constitute about one percent of what this country spends on higher education, are a good investment. Yet as economist Robert M. Costrell has noted, monetary concerns should be secondary to human ones: “Since one-third of our entering freshmen are being remediated for about one percent of the [higher education] budget, it is argued that programs are a small price to pay... [But] if the one percent cost figure is reassuringly low, then presumably one should not be terribly disturbed if, by extrapolation, 100 percent of the nation's freshmen were remediated for a three percent cost.”

It is the political costs, however, that threaten remedial education most. Legislators become especially exasperated, arguing that the state is paying twice to teach skills that students should have mastered in high school.

As a result, some states now limit the number of times a student may attempt a remedial course or require them to pay the full price of the course after two or more attempts. But other observers contend that colleges and universities are complicit in the growth of remedial education because many of them accept students who have insufficient academic preparation.

Given the vast number of largely nonselective colleges in this country, students can gain admission virtually regardless of how they performed in high school. Chicago's Mayor Daley recently suggested that the City College of Chicago drop open admissions—the philosophical core of the community college movement—because the city could no longer afford the \$30 million price tag for remedial classes.



## SECOND-RATE SECOND CHANCES

In spite of the substantial investment in remedial education, its effectiveness has never been clearly established, especially for the weakest students. Most studies draw generalizations based on single-institution data or surveys, do not control for student preparation levels, and lack information about indicators of effectiveness and/or the selection of institutional sites.

In 2006, Columbia University researchers Dolores Perrin and Kerry Charron lamented, “A rigorous, well reported, replicable, peer-reviewed national study of the effectiveness of community college remedial programs remains to be conducted.” One year later, the authors of California’s 2007 statewide basic skills framework, which included an extensive review of 250 studies, concluded that the use of experimental practices is rare and that there is not a common set of metrics to judge effective remedial practices.

Since that time, some progress has been made. A 2010 review of the literature by MDRC researchers, on behalf of the National Center for Postsecondary Research, identified 10 studies that passed muster as “rigorous” in assessing the effectiveness of remedial interventions. We hope that this represents an upward trend in building a body of research from which to identify effective practices, but it remains an astonishingly small research base for a discipline that has been around for decades, affecting huge numbers of students and costing billions of dollars.

To be fair, assessing the effectiveness of remedial education is no easy task. And in the last three years, researchers working in four states have completed several large-scale and methodologically rigorous studies. Taken together, these studies present a mixed picture. Research conducted in California and Ohio found positive results regarding the effectiveness of remedial interventions, but research in Texas and Florida shows negative or ambiguous results.

More important, these studies have almost nothing to say about the effectiveness of remedial education for the students who need it the most. That’s because controlling for the influence of students’ prior preparation required the researchers to test only students just above and below the cutoff for placement into remedial courses. Thus, these results apply only to the most

accomplished remedial students and even then indicate that current interventions have only limited impact.

Finally, even if we prefer to believe that remedial courses are effective, most students are loath to complete them. Thomas Bailey and his colleagues at the Community College Research Center, in a study involving thousands of students at 57 community colleges, found that the majority of students referred to remedial education did not fail these courses—they simply did not enroll in them. In this study, only 33 percent of those assigned to remedial math and 46 percent assigned to remedial reading finished the prescribed course sequence.

### A Debate Full of Sound and Fury...

Given this limited knowledge regarding the effectiveness of remedial education, the policy debate on this issue strikes us as repetitive and stale. Educational historians tell us that some form of remedial or compensatory education has been a part of American colleges and universities since the early 1800s, and it seems that the debate has not advanced much since that time.

UCLA professor Mike Rose captures this well in his book, *Lives on the Boundary*, a now-classic indictment of how higher education treats students needing remedial assistance: “Our schools have always been populated with students who don’t meet some academic standard. ... So we look to the past—one that never existed—for an effective, non-nonsense pedagogy we assume the past must have had.”

Supporters of remedial education remind us that turning our back on the needs of students who lack basic skills is a sure-fire way of increasing under- or unemployment, welfare dependence, and criminal activity. However, when reminded that there is so little compelling evidence that current remedial interventions prevent students from dropping out, supporters say: “But that is because these students lack appropriate academic preparation for college, not because they take remedial courses.” Fair enough, but such reasoning does nothing to build confidence in our current efforts to help students improve their inadequate academic skill sets.

Other adherents, especially those in the philanthropic community, place their hopes on advances in online learning. The idea is to connect students immediately after completing a placement exam with online tutorials or other learning supports that address specific academic deficiencies.

There is surely promise in this approach, but we must be careful not to consider increasingly robust Internet connections a substitute for effective pedagogy. We need advances in *how* we teach basic skills, not just in the delivery mechanisms. It seems naïve to believe that we can improve students’ college-level skills by making them do precisely the same thing in college that they failed to do in high school—only faster or online.

Finally, remedial education is viewed by the academy as a largely illegitimate pursuit. As Rose notes, there is a rigid intellectual class system in higher education that judges “certain kinds of cognitive work [as] peripheral and tainted.” As a result, remedial education programs are rarely supported adequately.

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Today, many four-year institutions would like to abandon their commitment to remedial education, leaving the heavy lifting to community colleges. Yet two-year institutions are the least well-supported postsecondary segment. Moreover, remedial courses are almost always funded at a lower rate than regular college courses, and our most experienced faculty rarely teach our most challenged students.

## TEN ESSENTIAL STRATEGIES

Although we were unable to produce a report for CCAP, we kept notes on what we *wanted* to find in the research literature but did not. We offer, then, ten timely reminders to the Obama administration, the higher education research establishment, and the philanthropic community as they begin—and hopefully sustain—their search for ways to strengthen remedial education:

**1) We need more data — a lot more data.** Given the extent and expense of the problem, it is disheartening to find so few rigorous studies assessing the effectiveness of remedial education. We are confident that some colleges are achieving success with their remedial interventions in such areas as pedagogy, faculty professional development, and course redesign. But unless researchers replicate these practices in the full glare of the peer-review process, we will never know why.

Investments in basic research are essential to establish replicable remedial interventions and to justify the extraordinary resources—human and otherwise—that remedial education now consumes. There are, of course, plenty of reports on the topic, full of pleasing anecdotes, color photographs and well-worded recommendations. Good intentions notwithstanding, though, we cannot build a set of best practices based on research conducted at a few institutions with mere handfuls of students. We need studies that address, at minimum, the most obvious confounding variables, such as students' level of education prior to entering college.

**2) We need to assess only the most promising practices.** There is no shortage of intriguing ideas and potentially useful practices in this area. We must now focus our attention, building on the good work of researchers and educators around the country. Foundations such as Lumina and Hewlett have spent considerable time and resources searching for best practices, especially teaching practices.

The Achieving the Dream initiative — a consortium of over 130 community colleges working on a series of empirically driven initiatives, including remedial education — represents a large and potentially useful laboratory. Vincent Tinto and his colleagues have adapted learning communities — a model with a strong empirical track record — for use in this area and have demonstrated promising, though modest, results. Researchers also are seeing some positive results in programs that mainstream students identified for remedial education who are placed in college courses and provided with additional academic support.

**3) We need to serve different students differently.** As any first-year psychology student will tell you, there is a world of difference between a student who has learned something and simply forgotten it and a student who never learned the material at all. Yet we often serve both constituencies similarly. Better-prepared students, those just below the cutoff for placement, are required to enroll in semester-long courses when a short tutorial may be all that is required.

Students with fewer skills, of course, need far more assistance, perhaps multiple courses spanning two terms or more (although, as data presented earlier showed, it is extremely unlikely that those assigned to such sequences, as currently administered, will enroll in and complete them). Moreover, even the most effective faculty members are challenged by students who have failed one or more remedial courses. Such students are perhaps the most difficult constituency to serve, a result not only of their insufficient academic skills but also because of an internalized sense of failure.

**4) We need assessments that pinpoint student strengths and weaknesses with greater precision.** Serving students with varying skills will require better diagnostic examinations. Many placement exams are single-score instruments, telling students little more than whether or not they exceed a specific cut score. Few examinations identify specific student strengths or weaknesses in a particular discipline.

Without a fine-grained analysis, a student might be placed in a semester-long remedial math class simply because he could not remember how to multiply fractions on the placement test. (In the interest of full disclosure, we work for an organization that administers a popular placement examination called ACCUPLACER®.)

**5) We need to insist on challenging learning environments for our weakest students.** We know that our best students respond well to challenging learning environments. We engage them in learning communities and present them with demanding curricula, such as Advanced Placement®, International Baccalaureate and dual-enrollment courses. We often reward our less fortunate students, however, with the “drill-and-kill” approach that characterizes a great many of our remedial interventions.

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Why not employ our most effective strategies with the students who need them the most? For example, preliminary data from such programs as the Gates' Early College High School Initiative indicate that underperforming high school students respond well to the challenge of tackling college-level course work, (although in this case, as well as with learning communities, bringing such interventions to scale may be costly).

**6) We need to provide students with incentives to complete a remedial education by connecting basic skills to the college curriculum.** As noted earlier, research shows that many students who start college with the prospect of having to complete a year of remedial education choose another path. Who could blame them? They earn no degree credit for these courses, use up limited financial-aid eligibility, and remain disconnected from the regular academic curriculum.

Yet new models signal hope. Washington State's I-BEST program, which links students to their chosen vocational preferences while simultaneously providing them with the faculty support to overcome their basic-skills deficiencies, has demonstrated success: those students do better than ones who do not receive the additional support. The often-used phrase for this practice is "contextualized learning," which only means that students have an incentive to improve their basic skills when remediation is linked to their motive in attending college.

Washington State's experience shows us that a reimagined remedial education strategy would no longer simply emphasize math, reading, and writing — worthy as these are — but would also use the ideas, skill development, and specialized language of individual disciplines. Students who identify their interest as business, for example, would not be trapped for a year or more in a set of courses that, while they build skills, have nothing to do with their expressed interest. Rather, this approach would provide students with the opportunity to integrate their academic interests into the skill-development process that is remediation. Enthusiasm, more than anything, builds the fortitude to persevere, and what we currently do to students is patently designed to eliminate any enthusiasm they bring to college.

**7) We need to take advantage of the combined expertise of high school and college faculty.** We often blame high school teachers for not preparing students for college, yet we rarely ask them to contribute to possible solutions. Community college faculty also do not escape criticism for low remedial success rates, yet they do not receive the resources or attention to ensure meaningful progress for their students. These two educational constituencies are most in tune with students' academic needs. They are also the professionals best equipped to assess students' readiness for college and the rigors of higher education.

If we are serious about developing a continuum of educational experiences for students, then these constituencies must work in partnership to help students traverse the bridge between high school and college. Such a partnership would focus attention on students' continuous improvement, align high school and college curricula, and weave basic skills and the student's educational goals into the fabric of everyday instruction.

**8) We need to emphasize prevention over remediation.** If we agree that college is, at best, an inefficient place to gain basic skills, the obvious strategy is to intervene in high school. This is where we lose our nerve, however, thinking the problem too intractable and the solution beyond our reach.

But there are modest interventions throughout the country that show promise. School districts in California, North Carolina, and Pennsylvania, for example, alert students at the end of the 11<sup>th</sup> grade if they have not yet reached the basic skills threshold for entry to a community college. High school teachers follow up in the 12<sup>th</sup> grade with educational interventions, designed in collaboration with college faculty, to instill the college-level competencies students need to succeed. It is this collective response of educators working in the high school environment that makes this seemingly obvious intervention a bulwark against the rise of collegiate remedial education.

**9) We need to move the spotlight from institutions to students.** In the current system, underprepared students straddle a netherworld between K–12 and college — emerging from the one unprepared for life in the other. Rather than emphasize an educational continuum, we have created a break point that makes little sense pedagogically.

While K–12 prepares the vast majority of students for a 10<sup>th</sup>-grade state exit exam, higher education is structured on a presumption that students have reached a certain vaguely defined level of academic competence. How can we restore some semblance of educational solidarity?

One idea is to develop a curriculum that links 10<sup>th</sup> grade through the first year in college. In this way, we achieve the following: the student becomes the central point of concern, not the organization; student expectations are pointed toward college as a logical extension of high school; the 12<sup>th</sup> grade, now considered something of a dead zone for accomplished students, becomes more vital because the unified curriculum allows for acceleration at any point; and students have the time to correct basic skills deficiencies identified in the 10<sup>th</sup> grade.

**10) We need to consider the study of remedial education a legitimate scholarly pursuit.** The success or failure of pedagogy occurs between teacher and student—in the classroom and on-line. Thus faculty, as creators of and participants in this educational dynamic, must be provided with the incentives to pursue excellence in this area as a valid intellectual pursuit—as worthy as any other in the academy.

W. Norton Grubb and his colleagues conclude from their comprehensive analysis of community college teaching that "developmental education is one of the most difficult teaching challenges and needs to be rescued from its second-class status." Viewing remedial education as a backwater pursuit, unwanted and undervalued by mainstream faculty, has slowed progress in this area. With little reward comes little research, which, at the core, is the reason we have failed to gain traction in developing large-scale remedial interventions that serve the needs of most students.

Educators across this country are engaged in earnest efforts to serve students who lack essential skills for postsecondary education. But solutions that tinker only perpetuate a system that appears—if we honestly say what the research reflects—in-capable of advancing most students effectively. As educators, policymakers, philanthropists, and others strive to advance the practice of remedial education in this country, keeping the strategies listed above in mind will make the difference between watching our investment disappear into a black hole and making real progress in an area that is among the most difficult in education. **C**

## RESOURCES

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