Conversations on Student Success

Topic 9. Developmental Education/At-Risk Students

Note: For articles below that require a log-in, see these instructions.

Best Bet Articles


The author points out the strengths and weaknesses of several studies. He concludes that the positive results are most reliable for students whose assessment results were close to the cut-off. The studies do not provide much insight into the effectiveness of developmental education for students with very weak skills. Research offers general guidance, but effectiveness of particular strategies is rare. Some 1990s studies that recommend counseling and support, mandatory enrollment and assessment, faculty committed to and trained in developmental education, and specialized programs could be valid, but the overall poor results since then could mean the strategies are not so effective or that they are not widely adopted. The cost to taxpayers is in the billions annually. The cost to students is also financial (accumulating debt, effects on financial aid eligibility, and lost earnings while in class). There is also a psychological cost to students who either wrongly believed they were prepared for college or were discouraged by yet another failure to learn. Some say that even if a developmental student never graduates from college, bringing their skills from sixth-grade to tenth-grade level is worth the cost and effort. The author recommends that educators a.) rethink assessment to focus on what a student needs to be successful in college, rather than just placement within the curriculum; b.) open college-level courses to more students and incorporate a variety of academic support assistance; and, c.) for the weakest students, shorten and concentrate the time necessary to prepare them to minimize cost and discouragement.


Retention and transfer statistics prove that problems exist in all aspects of developmental education including assessment and placement, student services, curriculum alignment and approaches for teaching the basic skills. However, the lack of assessment validity is a barrier to identifying what exactly should be done and the inability to agree on curriculum issues and instructor standards increases the challenge.
**Other Articles**


The article focuses on research concerning college remedial education courses. The authors examine whether students who take remedial coursework upon entering college have difficulties graduating. The research indicates a correlation between remedial coursework and a slower rate of graduation than students who did not take college preparatory coursework. In addition, students who took remedial courses in reading had less of a chance of graduating from college than did students whose remedial work was in math.


The article discusses the effects of mathematics remedial education in first-year college students. It quantifies the racial gap in success of remediation, noting that Blacks and Hispanics are disproportionately represented. It then analyzes the relative and cumulative contribution of five potential factors, and tests the moderating effect of college racial demographics on the likelihood of remediation success. It notes the positive effect of successful remediation in equalizing a post-secondary system which generally sorts individuals into strata of attainment. It concludes that remediation is largely unsuccessful with Blacks and Hispanics, but that for those who remediate successfully the long-term academic chances are favorable.


Postsecondary remediation is a controversial topic. On one hand, it fills an important and sizeable niche in higher education. On the other hand, critics argue that it wastes tax dollars, diminishes academic standards, and demoralizes faculty. Yet, despite the ongoing debate, few comprehensive, large-scale, multi-institutional evaluations of remedial programs have been published in recent memory. The study presented here constitutes a step forward in rectifying this deficit in the literature, with particular attention to testing the efficacy of remedial math programs. In this study, I use hierarchical multinomial logistic regression to analyze data that address a population of 85,894 freshmen, enrolled in 107 community colleges, for the purpose of comparing the long-term academic outcomes of students who remediate successfully (achieve college-level math skill) with those of students who achieve college-level math skill without remedial assistance. I find that these two groups of students experience comparable outcomes, which indicates that remedial math programs are highly effective at resolving skill deficiencies. [author abstract]

Characteristics and features of remedial education at community colleges, participation in these courses, and findings on the effects of remediation on student decisions and outcomes are discussed. When students with similar characteristics are compared, the authors find that remediation does not appear to have a negative effect, but it does not have as much positive effect as expected, although math remediation appears to improve some student outcomes.


This model advocates combining assessment data with information about students’ personal circumstances to make more precise placement decisions for advising, courses, and services. Advantages include reducing the number of students in developmental courses by placing as many students as possible directly into college-level courses with support specific to individual needs. It does not necessarily require new courses or services. It systematizes the interventions. Disadvantages are that it requires that the services (college and community) and courses be in place. It requires an increase in cost and time for assessment, although public domain assessment instruments may be used. Both students and advisors will spend more time on advising. It requires well trained developmental educators. Overall, some students will save time in developmental courses while others will be ensured that the support and services are more likely to contribute to their success.


Critical state policies include a.) preventative K-12 strategies; b.) careful assessment and placement guidelines; c.) support for implementation and evaluation of innovative programs; and d.) accurate and available indicators of colleges’ performance.


Esch states that vast numbers of students enter the community college remedial classes every year. Few are ever heard from again.

Community colleges have an obligation to do better, to pay close attention to student outcomes, and to try new approaches when the old ones obviously are not working or are too fragmented. Pros and cons of Obama’s higher education initiatives are briefly described. The observation is made that faculty, administrators, and elected officials must do hard work and focus their attention on improvement to much the same degree that they expect of developmental students.


Despite the importance of remediation and its significant costs, there is very little rigorous research analyzing its effectiveness. The authors present ideas related to the evaluation of
remedial education programs. Included are a list of ingredients for successful interventions, approaches to remediation that make use of these ingredients, and a discussion of alternative research designs for systematic evaluations and the basic data required for analysis and improvement to occur.


Remediation is widespread, with nearly one-third of entering freshman taking remedial courses at a cost of at least $1 billion per year. It is a “second-chance” intervention. Despite its prevalence in American higher education, there is considerable uncertainty surrounding its short- and longer-run effects. The authors used longitudinal administrative data from the state of Texas and a research design that exploits the sharp test score cutoffs used to assign students to remediation. Aside from weak evidence that remediation improves the grades received in college-level mathematics courses, they found little indication that students benefit from remediation. Their estimates indicate that remediation has a minimal impact on the years of college completed, academic credits attempted, receipt of an academic degree, and labor market performance. There was no effect on the probability of earning a college degree or on labor market earnings for students initially attending a two- or a four-year college, suggesting that remediation does little to improve students’ marketable human capital. The authors say that the nature of their research design implies that their estimates capture the average impact for a particular subset of Texas students on the margin whose participation in remediation is affected by passing or failing the placement exam. They call it a crucial policy parameter since it is informative about the students most directly affected by mandatory remediation policies such as the one in Texas at the time of their research. The effect on these students is important for evaluating policies that seek to change the cutoff used to assign students to remediation. However, the authors admit it is important to recognize that there are other policy relevant parameters their approach did not address. For example, their design might not be informative about whether remediation is beneficial for students who would actually seek out a remedial program regardless of their placement exam performance.


Eighty to ninety percent of librarians surveyed provide specialized library instruction to developmental courses and academic success classes. Although often not mentioned individually in developmental education best practices, libraries are actually among the often-touted “essential support services.” Analysis of reported teaching techniques show that librarians use sound pedagogy and work in cooperation with the course instructor to help develop basic research assignments, teach essential library skills, and reduce library anxiety. They develop library content and choose sources beneficial to development level students.


Successful ideas include giving students a limited amount of time to get up to speed on basic skills; ensuring that topics in developmental courses are engaging to students; using free summer and winter break immersion programs and allowing students taking them to test out of further remedial work; addressing both academic and motivational issues; and, collaborating with K-12 educators.
Counseling and Advising


Burton Clark’s proposition concerning the cooling out of underprepared students in community colleges has a controversial history and remains a point of contention. Central to Clark’s description of the cooling out process is the academic counselor, whose job it is to dissuade underprepared students from goals perceived to be overambitious and ease these students into lesser, presumably better-fitting academic trajectories. In this study, I test a number of hypotheses concerning the effect of advising on students’ chances of attaining their goals. I seek to determine what effect advising has on students’ attainment, and whether this effect is dependent upon students’ academic preparation, students’ race/ethnicity, the racial/ethnic composition of the college, or the representation of underprepared students in the college. I use hierarchical discrete-time event history analysis to analyze data that address two subsets of the Fall 1995 cohort of first-time freshmen who enrolled in any of California’s 107 semester-based community colleges. I find that advising is actively beneficial to students’ chances of success, and all the more so for students who face academic deficiencies, which contradicts deductions drawn from Clark’s description of the active role of counselors in the cooling out process. [author abstract]


The AVID program is designed to give high school students the opportunity and support necessary to succeed in rigorous college-prep classes. Teachers nominate students who demonstrate academic promise but may be held back by one or more barriers. The counselors are heavily involved. Beginning in grade 9, students participate in such things as four-year plans, mock admission committee interviews, college visits, advanced placement classes, classroom guidance, individual counseling, help with college applications and more. Parents are involved in all aspects from the beginning.


With changing demographics and the students’ need for remediation, academic advisors need to be cognizant of the nuances in working with this population. A model for professional academic advisors in delivering sound advising services to the developmental student population includes a.) Show they are safe. Provide support, not punitive motivation; b.) Be detailed in analysis of students’ academic abilities and coach to their strengths; c.) Be prepared to kindly yet firmly support them through set-backs; d.) Make connections for them with other support systems on
Counselors should remember that poor advising can have a negative impact with higher stakes for students already wrestling with self doubt, inadequacy, and financial aid trouble.

### College examples


For the time period 2000-2003, the measure most commonly used by the State of Texas to determine success in developmental education was student success at passing the TASP following participation in developmental courses. The authors used data from published reports issued by the Texas Higher Education Coordinating Board to identify and visit five exemplary institutions as part of a project commissioned by the Texas Association of Community Colleges. The institutions profiled include Lamar Institute of Technology (Beaumont), Northwest Vista College (San Antonio), South Plains College (Levelland), Temple College (Temple), and Texarkana College (Texarkana). Details of these programs are included in the article.


The author gives examples of programs and successful developmental students and instructors at colleges in California, Tennessee, and Florida.


In collaboration with the University of Texas at El Paso (UTEP) and 12 local independent school districts in the El Paso area, El Paso Community College developed a process called “college readiness protocol” to help high school students prepare for entry into college. Beginning their junior and senior years, El Paso area high school students (1) complete a joint admissions application to EPCC and UTEP, (2) learn about and prepare for the ACCUPLACER test, (3) take the ACCUPLACER test, (4) review scores with counselors, and (5) refresh skills and take the test again if needed. Some students also (6) enroll in a summer bridge program to strengthen their basic skills, if necessary. The analysis shows that fewer have been placed in developmental programs. The most dramatic improvement was in writing, followed by reading. Math readiness was not as successful.

The study uses student record information from the Washington State Community and Technical College System to track two cohorts of adult students 25 or older with at most a high school education who entered one of the state’s community or technical colleges for the first time in 1996-97 or 1997-98. The study examines the educational attainment of the students in both cohorts as well as their earnings five years after they enrolled.

Key findings from this study are: Attending college for at least a year and earning a credential provides a substantial boost in earnings for adults who begin with a high school diploma or less. Short-term training, such as that often provided to welfare recipients, may help individuals get into the labor market, but does not seem to help them advance beyond low-paying jobs. Neither adult basic skills education by itself nor a limited number of college-level courses provides much benefit in terms of earnings. These findings, which are consistent with previous research, suggest that community and technical colleges ought to make taking at least one year of college-level courses and earning a certificate or other credential a minimum goal for all of the many low-skill adults they serve. Only when individuals took basic skills courses concurrently with vocational training did they enjoy a significant benefit in average rates of employment and quarterly earnings.


At Prairie View A&M University near Houston, the school developed an Academy for Collegiate Excellence and Student Success (ACCESS). The article describes two primary components: a.) an intensive residential summer precollege academic component and b.) a centralized series of student-support-services during the freshman year. The significant elements are academic enhancement, effective advisement coupled with highly centralized support services, and a structured academically focused residential environment. Once of the first enhancements was the use of professional advisors (PAs). The ratio of advisees to PAs was 100 to 1. The PAs worked flex-time to include weekends as a way to ensure that they were available when students needed them. They provided academic advisement; one-on-one major, career, and basic personal counseling; and resource referral; they also taught the “Freshmen 101” orientation course to their advisees. The results included improved enrollment and retention and better support services.