Institutional Decision Making for Increasing Academic Preparedness in Community Colleges

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The teaching of precollege reading, writing, and math became a necessity in community colleges by the early 1970s, as their doors began to open to all students, whatever their level of academic preparedness (Dougherty, 1994). Across the country, community colleges created developmental education programs to provide basic academic skills instruction, counseling, and other support to academically underprepared students. Today, these programs are a prominent feature of community colleges, and without them postsecondary access would be seriously curtailed.

However, despite the importance of developmental education, there are differing claims as to its effectiveness. Further, it is not clear how these programs should be organized within colleges, and there are many accounts of innovations being tried in individual developmental education classrooms as instructors struggle to identify effective teaching methods. Issues of effectiveness, organization, and instruction suggest that optimal models of developmental education remain to be identified. Finally, the community college population continues to diversify, with increasing numbers of students of racial, ethnic, and linguistic minorities and low socioeconomic status, more students who are the first in their families to attend college, and more who

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are considerably older than traditional college age. In response to the changing demographics, nontraditional approaches to education are increasingly needed. In this climate, community colleges are seeking ways to improve their developmental education programs.

The purpose of this chapter is to provide an overview of current organizational and instructional approaches to developmental education and recommend a process by which community colleges can make institutionally appropriate decisions to improve developmental education outcomes. Throughout this chapter the terms developmental education and remediation are used interchangeably, although they may reflect different philosophies.

**Current Approaches to Developmental Education**

Ideally, educational institutions should be able to base instruction and services on systemic evaluation data that point clearly to the benefits of one approach over another. However, such studies have not been conducted in most community college developmental education programs, and colleges cannot wait for controlled studies before they make decisions about how to promote the educational achievement of academically underprepared students. Pending such studies, they can consider adopting practices that other institutions have found promising.

The Community College Research Center recently conducted an in-depth case study with fifteen community colleges across the country (Perin and Charron, forthcoming) that identified a range of promising practices in developmental education. Information from interviews with instructors, administrators, and counselors, examination of instructional material, and classroom observations indicated that a great deal of innovation was in progress. However, the wide variety of organizational and instructional approaches at the colleges studied suggested a lack of consensus on ways to ready academically underprepared students for the college curriculum.

**Organization of Developmental Education.** Given the necessity of developmental education programs, community colleges need to decide whether to house them in stand-alone departments (centralized organization) or integrate them into regular academic departments (mainstreamed organization) (Perin, 2002; Shults, 2000). Centralization has been recommended in previous literature on the grounds that it makes it more likely that faculty will have a primary interest in teaching basic precollege academic skills, and because counseling and ancillary tutoring are more readily available (Boylan, Bliss, and Bonham, 1997; McCabe, 2003; Roueche and Roueche, 1999). Despite claims about the superiority of centralization, McCabe (2003) reports that most community colleges mainstream their developmental education programs.

This trend was also found in Perin and Charron's (forthcoming) study, where twelve of the fifteen colleges mainstreamed their developmental programs, one centralized them, and two used a mixed model. Among the
twelve colleges with mainstreamed programs, five used "partial" mainstreaming whereby the developmental education courses were housed in regular academic departments but coordinated separately. In the mixed models, different remedial areas were mainstreamed and centralized. For example, developmental writing and math courses could be taught in regular English and math departments, but developmental reading was provided through a separate department.

At one college, in addition to partial mainstreaming, a diffusion model was used, in which developmental courses were operated by one department and practice labs by another, creating difficulties in staff communication. In another example, self-paced, computer-assisted developmental education courses were taught in five different learning centers. A reading professor oversaw the delivery of reading instruction in these centers and reported to different senior administrators on curricular and delivery issues. Another college found it difficult to control the organization of developmental education because "little study centers" were sprouting up around campus despite an intention to centralize.

Although the ease of administering centralized and mainstreamed models seemed roughly the same, interviewees noted advantages and disadvantages of each model. Mainstreamed approaches benefited from economies of scale but did not prioritize the hiring of instructors with specialized backgrounds. For example, in a college where developmental education was mainstreamed, an instructor who had remedial expertise thought that it would be better to centralize the remedial courses, saying "We [developmental educators] don't believe English teachers can teach reading. Reading is a very specialized skill, and to help a disabled reader, you have to know a lot of things about what goes on in the brain to bring them forward." Instructors whose own academic backgrounds predispose them to teach literature and college math may not feel equipped or inclined to teach remedial students.

However, isolating remediation in a centralized structure may limit remedial instructors' awareness of the content and expected performance of the college-credit courses for which they intend to prepare students (Perin, 2002), and it may also reduce college-credit instructors' understanding of students' needs. Communication between regular and developmental education faculty may be limited in a centralized model, although college size might mediate this effect. At one of the smaller colleges in the sample, which followed a centralized model, frequent interactions between developmental education and college-credit instructors permitted regular communication about the needs of underprepared students.

Other factors that may affect the choice of organizational structure are remedial placement policy, size of academic department, and institutional politics. All of these concerns were seen at a case study site where developmental education was mandated for underprepared students and a centralized remedial department had been abolished because it was perceived by
senior administrators to be too large and powerful. Colleges in which significant proportions of students are underprepared may prefer to distribute students across departments so that the whole college shares responsibility for the development of their knowledge and skills.

Despite the wide variety of organizational practices, Perin and Charron (forthcoming) found that many faculty thought centralization was most beneficial to students. Whichever model turns out to be the most effective, the lack of uniformity across community colleges suggests that the organization of developmental education is an ongoing institutional concern. The various issues described in the research literature make it difficult to recommend one model over another; the characteristics, policies, and goals of individual colleges need to be considered as organizational decisions are made.

Assessment and Placement. Most community colleges assess the academic skills of incoming students (Shults, 2000; U.S. Department of Education, 2003), but institutions vary in whether they require low-skilled students to enroll in developmental education (Perin, forthcoming). Some states, such as Texas, Illinois, and Florida, mandate remedial placement but leave specific decisions on how this is to be done to local institutions. As with the organization of developmental education, placement policy is highly variable across institutions, possibly because of a lack of consensus on the characteristics of college-level performance (Merisotis and Phipps, 2000; Oudenhoven, 2002; Phipps, 1998).

An interesting phenomenon found by Perin (forthcoming) is that both states and colleges may soften their own placement mandates by permitting the use of subjective assessment procedures, allowing the override of test scores, lowering cutoff scores, and substituting college-credit courses for remedial courses. At one college in the Perin and Charron (forthcoming) study, low-skilled students were exempt from remedial courses if they signed a waiver. In another, only one area of remediation was required, even if the student placed low in reading, writing, and math—with the stipulation that if math were selected, the student would have to complete the whole remedial math sequence. Another college in the sample mandated developmental education but permitted low-scoring students to take selected college-credit classes instead of skills classes because it did not have enough developmental sections. These policy adaptations may benefit both students and the institution, by facilitating access to the college curriculum for students who are eager to earn degrees, and by helping institutions respond to the threat of lowered enrollments. Thus, while colleges recognize the value of universal assessment, their actions often reflect the real-world challenges of mandatory placement.

New Course Formats. Traditionally, community colleges offer between two and four levels of developmental reading, writing, and math courses, which each run for one semester. At some colleges, the number of levels has been reduced in an attempt to speed up the completion of remediation and entry into the college-level curriculum. This reduction may result in
increased retention and associated college access, but it may also result in a lowering of course standards because of the presence of underprepared students. Generally, administrators and students prefer fewer developmental course levels whereas instructors argue for more.

The standard course format includes several classroom sessions per week and an additional lab component providing tutoring and computer-based practice (Boylan, 2002). Often, developmental education enrollments are capped at lower levels than college-credit courses (McCusker, 1999). Most developmental courses bear institutional credit but do not count toward degrees.

By definition, the traditional approach predominates, but Perin and Charron (forthcoming) found a number of new course formats designed to increase student achievement, including self-paced, tutor-based, online, accelerated, intensive summer, contextualized, personalized, combined reading-writing, combined remedial and college English, study skills, off-site, alternation of instruction and application, and instruction following a quarterly rather than semester schedule.

Many of these new course formats are popular among developmental students. For example, when one of the colleges offered remedial math students a choice between a standard course and an open-entry, open-exit, self-paced course in a specialized math lab, two-thirds opted for the nontraditional format. At another institution, all developmental math was taught using self-paced and small-group work in class, and supplemented by tutoring during lab hours. Students were permitted take a state test for exit from remediation when they felt ready to pass. Previous literature indicates the need to prepare students to monitor, evaluate, and regulate their learning processes if a self-directed learning format is to succeed (Garrison, 1997).

A tutor-based remediation option was available at another college in the study for students who scored within ten points of passing the state placement exam. The option was so appealing to students that three full-time professional staff who were designated as tutors could not meet the demand (642 students in one semester). The tutoring was popular because it meant that students would not have to register for yet another remedial course and could receive instruction based directly on their individual skill patterns. If colleges have sufficient resources to hire experienced, professional tutors, this approach appears to be promising for helping students clear the last hurdle to exit from remediation.

Five of the colleges in the sample provided accelerated remedial courses. At one institution, students had a choice between half-semester and full-semester remedial reading courses. At another, a separately coordinated, five-week remedial math and writing program was offered to hasten students' preparation for the college curriculum. Short-term summer remedial courses were another example of accelerated remedial instruction; some of these were intended for students who had failed a remedial course during the academic year. Although the idea of accelerating developmental education seemed
popular, there was also some resistance. At one college, administrators were reluctant to implement a district request for a fifteen-week fast track course (reduced from eighteen weeks) after experiencing difficulty finding classroom space. At another, instructors doubted the feasibility of acceleration because of the seriousness of students’ academic difficulties. Although the institutions did not have outcomes data on these options, interviews revealed that although acceleration increases access to the college curriculum and might stem dropout, the process may leave some skills untaught, which may in turn threaten the quality of the college-credit courses, and ultimately, the long-term educational outcomes of low-skilled students.

Another modification of traditional developmental education was contextualized instruction, in which basic skills were linked to credit-bearing, disciplinary courses. For example, one remedial writing course taught nursing aspirants the writing skills they would need to produce documentation for the health care profession. Another new format was to combine reading and writing instruction, traditionally taught separately in community college developmental education. In another approach, one of the institutions offered a modified remedial course combining college-credit and developmental English. This was a six-hour offering for students with borderline scores on the writing portion of the placement test. Students could retake the test twice during the semester, and if they passed, continue with and receive credit for college-level English. All in all, the new formats represent attempts to improve outcomes for developmental education students. Institutions considering such changes would benefit from collecting systematic data to measure the effectiveness of these promising practices.

**Instructional Improvement.** Developmental education instruction has tended to focus on isolated skills (Grubb and Associates, 1999) but, in surveying recent developmental education literature, Perin and Charron (forthcoming) uncovered active searches for instructional improvement. These searches included the following classroom practices: providing explicit, structured, sequential instruction and prompt feedback; presenting information in small chunks, related to information students already have; using mastery learning and learner-centered, meaning-based instruction; linking basic skills to content applications; varying teaching approaches based on cognitive theory; using computers, electronic communication, and Web access; teaching for independent learning; incorporating student identity issues in teaching; promoting student-faculty contact and cooperation among students; accommodating different learning styles and abilities; aligning developmental education with college and state standards; hiring instructors who are credentialed, experienced in special education, and sympathetic to the needs of at-risk students; providing professional development; and assessing program achievements.

Most developmental educators would agree that some if not all of these strategies are useful; what is lacking is systematic, controlled evaluation that can inform institutional decision making.
In addition to numerous teaching methods that can be used to improve students' skills, connecting remedial courses with other courses through learning communities is a promising approach. Perin and Charron (forthcoming) found two kinds of learning communities involving remedial courses. One type clustered developmental courses for single cohorts of students, and the other linked remedial courses with one or more credit-bearing content courses. Learning communities that included developmental education courses were rare, however, possibly because many remedial courses are prerequisites for credit-bearing courses, or because of scheduling difficulties. Despite these barriers, positive outcomes have been reported for learning communities (Boylan, 2002; Tinto, 1997), which suggests that this innovation may be worth the considerable resources and effort needed for implementation in developmental education. Like other contextualized learning approaches, learning communities may help students generalize the skills learned in remedial courses to the content courses needed to earn a degree.

A Template for Effective Institutional Decision Making

The following section offers a four-step decision-making template to assist community college administrators and faculty who want to improve developmental education outcomes in their institutions. The steps, preliminary actions, and decisions presented here can be seen as a menu of options from which educators can choose, and can be modified and expanded as needed. There is no one way to improve developmental education, and all new practices must be consistent with institutional culture and goals.

Step 1: Gather Data. The first step in moving toward effective institutional decision making to improve developmental education is to identify available institutional data that can be used to understand outcomes of developmental education students. Examples include retention and pass rates in individual courses, exit rates from developmental education, semester-to-semester persistence rates, enrollment in higher-level courses, test scores and grades, and college graduation rates. Colleges without institutional research offices may be able to obtain relevant data from state databases or ask district or state offices to help them gather data on a regular basis.

Once the appropriate variables have been identified, colleges may decide to compare their developmental education outcomes with findings from peer colleges in the district or state. District or state standards will indicate the specific bases on which the effectiveness of new policies will be measured, and can help stakeholders focus on the need to evaluate the policy adjustments and innovations.

Step 2: Determine Outcomes. Once data have been collected, analysis of the evidence will allow the faculty and administrators to decide whether the information gathered permits meaningful conclusions about the performance of developmental education students in the institution.
Colleges might generate a list of specific questions in response to the evidence, including: Which skill areas and sections show the highest retention and pass rates? Do developmental education students in learning communities show better retention and pass rates than students with the same entering skills and demographics who are not in learning communities? What are the characteristics of instructors whose sections show better outcomes? What instructional methods are used in sections that show higher retention and pass rates? In institutions where remediation is voluntary, questions could be asked about the age, previous educational achievement, and goals of students who do and do not opt for developmental education courses.

After generating a list of questions, institutions should specify any additional data that need to be gathered, and can decide whether the measures, such as placement tests, are adequate and provide an accurate reflection of students’ academic preparedness. If developmental student performance indicates that improvement is desired, the following steps can be taken.

**Step 3: Identify Organizational and Instructional Options to Improve Outcomes.** The third step in this template is to select at least one area that the institution can address to improve outcomes. The following list of options is not exhaustive, nor are all items applicable to all institutions. In each of the following areas, an example from previous research (Perin, 2001; Perin and Charron, forthcoming) is provided to indicate the complexity of changing existing remedial practice.

**Organization of Developmental Education.** To improve developmental education, colleges might change their current structure (centralized, fully or partially mainstreamed, or mixed) or work to improve the efficiency of the current organizational structure. They need to estimate the impact of the new organization on students, faculty, and the college in general, and create a procedure to evaluate and assess change in organizational structure. For example, if a college is too large to permit routine, informal interdepartmental communication, incentives could be provided for developmental and college-level instructors to collaborate formally to align their respective curricula. Procedures for reorganizing developmental education and promoting faculty collaboration could be designed by a panel of developmental and college-level instructors and administrators. However, resources must be made available to ensure faculty collaboration. In addition, instructor surveys and analyses of student retention and grade data should be used to indicate the results of the new organizational structure.

**Assessment and Placement.** Colleges might change their assessment instruments or cutoff scores for assignment into remedial courses if students are not succeeding at expected rates in college-level courses. They might also increase or decrease the number of remedial prerequisites for college-level courses. As part of this process the college must also estimate the impact that tightening or loosening the placement mandate would have on enrollment in and quality of college-level courses.
For example, if a college mandates developmental education but applies a low cutoff score on the initial placement test, many students may test out of remediation but not pass the college-level courses. In this case the college could raise the cutoff score, but it would need to allocate additional resources to fund a greater number of remedial sections. Further, the college would need to face the possibility that increased remedial placement could result in greater attrition and thus lowered enrollments. If this is unpalatable, the college may decide not to adjust the cutoff score and instead consider how to provide systematic instruction of basic academic skills to students as needed in college-level courses.

**Instructional Format.** To improve developmental instruction format, colleges might change the number of levels in one or more areas (reading, writing, math), add or reduce time in lab practice, or change the nature of lab practice. As well, colleges might create learning communities and make the necessary changes in registration procedures and program requirements to ensure adequate enrollment. Colleges might also accelerate or lengthen the time students spend in remediation or implement a new instructional format, such as self-paced, tutor-based, online, accelerated, intensive summer, contextualized, personalized, combined reading-writing, or combined remedial and college-level English. Finally, a college might incorporate study skills, off-site instruction, alternating instruction and application, or instruction following a quarterly rather than semester schedule.

One way to alter instructional format is to create learning communities, such as a cluster of courses for prenursing students that includes advanced developmental writing, introductory biology, and philosophy. Any content course can be selected, provided there are no prerequisites for remedial writing. To ensure adequate registration, the college can block prenursing students from registering for biology or philosophy sections that are not part of the learning community. As with all learning communities, it is most effective for the instructors of the three courses to collaborate and align their curricula rather than teach without reference to the others.

**Instructional Strategies.** Colleges can identify areas in which one or more new teaching strategies would be effective and appropriate for the levels at which they should be employed and for the instructors who employ them. For example, in institutions that enroll many recent high school graduates, instructional strategies that use electronic media, active projects, and immediate application to situations that the students see as meaningful may be more effective than instruction in isolated skills.

**Step 4: Prioritize and Implement Organizational and Instructional Decisions.** Once institutionally appropriate options for improving developmental education have been identified, colleges should prioritize institutional decisions, select those that are most pressing and feasible, and create a process for implementing them. Examples of implementation processes include faculty-administration collaboration, cross-disciplinary instructor
collaboration, faculty development initiatives, and an institutional incentive system to promote change.

Previous research suggests that developmental education is changed more effectively when faculty are involved in creating the initial vision and designing the implementation procedures than when the change is presented from the top down. The instructors who are key to institutional change will be more likely to implement important classroom modifications if they collaborate with the administration throughout the decision-making process. Included in this collaboration should be the determination of how developmental education can be assessed and monitored on an ongoing basis to gauge the effects of institutional and instructional change.

Besides faculty-administrator collaboration, instructor partnerships set up to align remedial and content curricula can improve developmental education. Challenges for faculty collaboration include finding time for regular meetings and resolving disagreements that may arise in evaluation standards, reading selections, or in other areas. Cross-disciplinary faculty collaboration can be initiated and monitored through professional development activities, which should be given high visibility in the institution. Institutions might offer incentives to instructors to implement change. These incentives include summer pay, course release, awards, and opportunities for presentation and travel to national conferences.

Conclusions

This chapter uses a focused case study of fifteen community colleges and other relevant research to identify organizational and instructional approaches to developmental education currently employed at community colleges. This information can alert instructors and administrators to approaches that have been developed in recent years to improve the retention and performance of academically underprepared students.

This chapter also provides a template to guide colleges in making institutionally appropriate decisions to improve developmental education. The template does not identify a single best-practice approach but instead provides a process for community college faculty and administrators to follow in thinking about how to improve developmental student outcomes.

Because "research topics valued by individuals associated with universities may be quite distinct from research topics centered on contemporary community college issues" (Bers and Calhoun, 2002, p. 10), the template may not include items that are important in local institutions or may inappropriately overemphasize others. Optimally, users can adapt the template's components to address specific institutional goals. The template can help institutions prioritize goals that may ostensibly conflict with each other—for example, increasing access while simultaneously maintaining standards (Perin, forthcoming) or increasing baccalaureate transfer rates while keeping a commitment to educate underprepared students (Shaw and London, 2001).
In its current form the template addresses assessment, placement, instructional formats, and teaching strategies. It could be expanded, however, to incorporate other important areas, such as new student orientation, advising, English as a Second Language instruction, disability services, and the use of academic learning centers.

Although there are ample reports of best practices in existing literature (Boylan, Bliss, and Bonham, 1997; McCabe and Day, 1998; Roueche, Ely, and Roueche, 2001), few practices have been systematically evaluated. Lacking such studies, firm recommendations for changes in developmental education policy and instruction are premature. However, pending systematic evaluation evidence, community colleges can benefit from tracking their own initiatives using routinely collected institutional data. However, many colleges have not allocated the resources necessary to analyze data they have collected on the performance of developmental education students. Institutional use of the template offered in this chapter may encourage colleges to increase their use of student data.

Finally, it is important to acknowledge the difficulty of institutional change. As experienced practitioners already know, vision, risk taking, time, effort, and practical resources are necessary to effect the deep changes needed to boost the achievement of an increasingly diverse student body. Whether institutions approach change sequentially or reform several aspects of policy and instruction simultaneously, taking a close look at current practice and student data, in combination with the energetic collaboration of administrators and instructors, seems to offer promising approaches to improving developmental education and student achievement.

References


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