Refocusing Developmental Education

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Are educational institutions responding correctly to this challenge [of serving underprepared students]?

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ABSTRACT: Dissatisfaction with student success has caused a crisis in developmental education. Critics from both inside and outside the field question whether remedial courses really prepare students for future college work or even if they are properly part of the college mission. In this article, we review research and present information that suggests developmental educators should redefine core principles and key concepts to reinvigorate theory and practice in the field.

Each fall, thousands of new students unable to read at the college level, unable to write standard academic English, unable to compute algebra problems, and unaware of the amount of time and effort required to master these skills arrive on college campuses (McCabe, 2000; National Center for Education Statistics [NCES], 1996; THE INSTITUTE, 1998). Although many students are motivated to overcome the barriers that stand between them and their educational goals, many more fail to engage this sometimes daunting task. The resulting question—Are educational institutions responding correctly to this challenge?—is echoed on many fronts.

Developmental education can be and has been defined in many different ways. During cycles of the profession, various aspects have come under scrutiny and attack from government officials, school boards, parents, and even students themselves (Arendale, 2003). The resulting uncertainty contributes to the discouragement that can arise from teaching courses to students who are not ready for college. The articulation of a common set of core values may counter this uncertainty and help developmental educators think about ways to create positive momentum in the field.

The traditional core of developmental education has been remediation. Although educators and institutions at all levels have often agreed that the task of student development is shared across campus (Cross, 1971; Spann & McCrimmon, 1998), skill development courses remain the tool most commonly used by developmental educators. Some researchers argue in favor of the effectiveness of remedial coursework (e.g., McCabe, 2000), and others argue against it (e.g., Levin, 1999).

The result has been further division within the field. In addition, remedial courses have not only stimulated the most research but have drawn the most criticism from policymakers (Boylan, 1999; Saxon & Boylan, 2001). A "remediation only" approach also contrasts with the broader view of developmental education as academic support for all students (Higbee, 1996; Lundell & Collins, 1999) delivered by all faculty (Tinto, 1993). If the unification of professionals in the field is dependent upon finding a common voice and value set underlying their work with students, it is imperative to move forward with discussion and research to better define our foundations.

Remediation: Historic Contexts and Current Issues

The principle that no student should be denied the chance to attend some form of postsecondary education may be supported by the American ideal of equal educational opportunity for all, but the public has also voiced the belief that 4-year colleges should be selective (Caravale & Rose, 2003). The large numbers of students applying to colleges in the 1960s and 1970s together with the proliferation of open-admission colleges during the same time frame made it possible for increasing numbers of 4-year colleges to be selective in their admission processes (Grubb, 1999). But, for many reasons, 4-year schools have continued to admit underprepared students, and institutions have often adopted stand-alone courses designed to remedy skill deficits to serve such students. For example, Bader and Hardin (2002) described how a state system of higher education created developmental studies programs centered on remedial courses for, among others, underprepared minority students brought into 4-year colleges and universities via "alternative admissions standards" (p. 36).

Recently, many public 4-year colleges have been pressured to discontinue traditional course-based remediation (THE INSTITUTE, 1998), and many state legislatures or higher education boards are moving to restrict it (Arendale, 2003). This movement to reduce remedial courses in colleges continues despite the fact that nearly every community college,

4-year college, and university in the United States admits students who are not ready for the level of academic work expected of them (NCES, 1996). This has led 78% of all higher education institutions, including 100% of community colleges, to offer remedial coursework; these courses use only 1% of the U.S. higher education budget (NCES, 1996). Saxon and Boylan (2001) have argued that remedial courses pay for themselves, whereas McCabe (2000) has asserted that remediation is a good investment for society and has concluded that developmental educators need to continue their efforts to improve it.

Is Remediation Effective?

If remedial courses are to remain an important part of developmental education, researchers need to determine if they truly prepare students for future college work and how the courses fit into the full range of services for developmental students. Evaluating students on traditional outcome measures such as retention, grades in the next course, and grades in the "regular" curriculum may be the best way to answer this question.

Critics of mandatory remediation such as Richardson, Fisk, and Okun (1983) have long argued that it does not advance students toward degrees. Levin (1999) summarized a broad array of research supporting the Richardson et al. argument that students who are required to take many remedial courses get discouraged and drop out, and those who complete remedial programs "succeed" because of their prior program motivation or abilities. In his review, Levin also criticized the lack of rigorous follow-up studies on the effectiveness of remedial programs, saying this absence leads to a real ignorance of just what, if anything, they accomplish.

The Argument for Remediation

Despite opposition, arguments to continue remedial education have continued to exist. For example, a high quality study by Schoenecker, Bollman, and Evens (1998) found that community college students who were recommended for remedial, nondegree courses but did not take them (noncompleters) had lower average GPAs and lower subsequent registration (persistence) rates than students who completed remediation. On the other hand, when Schoenecker et al. examined the development of writing skills more closely, they found the subsequent pass rate in the college-level composition course to be 84% for those who completed a remedial writing course compared to a rate of 79% for noncompleters, reflecting only a small, nonstatistically significant advantage for completers.

Nevertheless, providing students with opportunities to strengthen their writing, reading, math, and study skills has exhibited positive benefits. The Schoenecker et al. (1998) study also showed that significant numbers of students voluntarily took and benefited from developmental writing classes, even if mandatory placement did not require them to do so. This suggests that colleges should continue giving placement tests and offering precollege-level skill development courses. Students are likely to benefit from these courses in ways that are not easily captured in studies of persistence and course performance, especially if they enter them voluntarily (Bers, 1987; Maxwell, 1998).

Success Beyond Remedial Coursework

One of the largest debates surrounding the skills remediation approach to developmental education is whether it prepares students not just for short-term course success

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but if it also contributes to degree completion. Evidence from the Exxon sponsored National Study of Developmental Education (Boylan & Saxon, 1999) suggests that taking fewer remedial courses is associated with better retention and higher graduation rates. The Little Hoover Commission's (LHC, 2000) examination of a state community college system also suggests that remedial course placement is associated with low probabilities for degree completion.

More specifically, LHC (2000) statistics compiled from all public community colleges in California for the 1998-99 academic year showed that 10.4% of all community college enrollments were in basic skills courses. Eighty percent of students completed these courses successfully, but only 24% of completers went on to take even one higher-level course. The commission report also suggested other student success problems. Even though California community college students completing 2 years with a 2.0 GPA were admissible to California State Universities and those with a 2.4 were admissible to the highly selective University of California campuses, only 3% of California public community college students actually transferred to these public institutions.

Other studies have suggested a higher overall transfer rate. Berkner, He, and Cataldi's (2002) report of a 6-year longitudinal study of postsecondary students across the U.S. suggested a 25% transfer rate of community college students to 4-year institutions. However, those students identified as developmental students were much less likely to transfer. Adelman (1999) reported a 19.3% rate of attaining baccalaureate degrees for students who earned more than 10 credits in the community college curriculum and more than 10 credits at their transfer institution, highlighting the importance of early academic progress in determining later academic success.

McCabe (2000) responded to concerns about low transfer rates by arguing that students enrolled in remedial courses improve their lives in many ways besides improving their chances for academic success. He asserted that continued refinement of the mandatory testing/placement system will lead to improved outcomes in students' academic and life goals and that the economic benefits of helping even a small percentage of these students outweighs the costs. He also argued that allowing underprepared, unremediated students to enroll in college-level courses will cause teachers to reduce their expectations for student performance, watering down the curriculum for everyone.

The Impact of Underprepared Students on Curriculum Quality

Some research evidence has supported the contention that the presence of underprepared students has an impact on faculty teaching style that is not conducive to student development. Richardson et al. (1983) found that teachers in a large community college system felt strong pressure to reduce the literary requirements for their mainstream courses, especially when underprepared students were allowed to simply enroll. Teachers who could effectively reduce the content of a subject to a few "bytes" of information were popular with students and received teaching awards, insuring their future employment. Based on observations of 257 classrooms in 32 community colleges from 11 states, Grubb (1999) reported that many liberal arts instructors, faced with students who could not do the assigned subject matter work, converted their academic courses into skills courses even though they had no clear conception of how to do skills development. He concluded that, "despite what policy makers think they are doing [when they mandate elimination of remedial courses], remediation will persist in other guises: Instructors will continue to modify their courses accordingly" (p. 198-199).

Alternatives to Remediation

The widespread belief that changes in developmental education might lead to greater student success has stimulated discussion about a new future. Arendale (2000) recently asserted that the biggest trend in developmental education will be "the concurrent development of learning strategies while students are in graduation-credit content courses" (p. 8). Boylan (1999) suggested expanding the scope of developmental education to utilize research-based alternatives to remedial courses such as freshman seminars, Supplemental Instruction, learning communities, collaborative learning, paired courses, and critical thinking instruction as part of the regular college curriculum. Grubb (1999) argued that to be successful with underprepared students, developmental education should be "integrated with academic and occupational subjects" (p. 205). He also pointed out that "developmental education is one of the most difficult teaching challenges and needs to be rescued from its second class status" (p. 174). Integrating developmental education with the college-level curriculum may help accomplish both goals. Integrated courses can serve students' skill development needs as well as their need to become knowledgeable in content areas (Brothen & Wambach, 2000). And training college instructors to help students develop skills within their courses would also make developmental education more central to the curriculum. Additional research and examination of such integrated initiatives should help uncover primary shared goals and values in the field.

One crucial question is whether underprepared students can enter the college-level curriculum without causing the diminution of quality that Richardson et al. (1983) and Grubb (1999) have observed. Another question is whether the proposed alternatives are powerful enough to remediate the academic skills of individuals with longstanding, serious skill deficits. Although these individuals might never be candidates for degrees, strengthening their basic skills at least improves their likelihood of successful employment and responsible citizenship. Even though educators and politicians at all levels have sometimes staked out extreme positions on this issue (Arendale, 2003; THE INSTITUTE, 1998), we believe that a new consensus is possible about what to do for underprepared students.

Seven Key Concepts for Highly Effective Educators

To deal with the diversity of opinion about the future of developmental education coming both from outside and inside the field, a reexamination and renewal of key concepts is necessary. It is important for practitioners to conceive of developmental education as dynamic rather than an entrenched solution to a problem that students may not actually have. Professionals in the field should question the assumptions behind developmental education practice and realize that it may mean very different things in different places with different students. The following discussion of seven critical concepts offers a starting place for this important conversation.

1. Continue and Refine Literary Skill Development Courses

These classes have a place in higher education. It may not be wise or even possible to replace stand-alone reading, precollege writing, and study skills courses with Supplemental Instruction (SI; Arendale, 2002), writing across the curriculum (Miller, Brothen, Hatch, & Moen, 1988), or a variety of other activities

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and arrangements (Boylan, 1999). SI is promising because it can be applied to students' education at any point and, because it is associated with high-risk courses rather than high-risk students, it is less stigmatized. Academic assistance throughout students' academic careers may be the most powerful remedial technique, but such interventions are typically voluntary. Underprepared students may not be as likely to use them as their better-prepared peers.

There is undeniable wisdom in McCabe's (2000) description of an increasingly diverse population in need of basic tools to participate in the workforce of the 21st century. Reading teachers and other developmental educators can contribute much to meeting these needs, and traditional reading, writing, and study skills courses can be very useful for many students (c.f., Hadwin & Winne, 1996). Locating these courses in postsecondary institutions instead of relegating them to adult education programs may be particularly important in connecting students to the educational programs necessary for workforce development. For example, Berkner et al. (2002) showed that, of entering community college students with no aspirations for obtaining degrees, 10.7% received associates' degrees and 5.8% baccalaureate degrees within 6 years of first enrollment. Taking any college course may open students' eyes to possibilities they had not previously considered.

2. Vary Course Placement Requirements Based on Student Goals and Program of Study

Educators should encourage students to take skill development courses when the courses are clearly related to their goals. This has implications both for students and programs. For example, most educators would agree that colleges should offer precollege level mathematics courses, and 99% of 2-year and 78% of 4-year public colleges do offer math courses at the level of intermediate algebra or below (NCES, 1996). The question is largely about which students should take remedial courses. For example, a student wishing to major in art, who took college preparation math courses in high school but could not perform at college level on a math placement test, would not have to take a math course at the University of Minnesota but, rather, could satisfy the mathematical thinking distribution requirement by taking logic (Hatfield, 2001). Such a student could be required to take a remedial math course if he or she begins at a community college utilizing mandatory testing/placement and might argue that the class is a waste of time and money. If the hypothetical student is interested in business, then remedial mathematics might be necessary, especially if the placement test results are consistent with other information about the student's math proficiency. Thus, institutions need to find ways to strike a balance between requiring remediation that could delay students' progress and allowing them to make choices that may not be helpful to their academic success (c.f., Miller & Gerlach, 1997). At the same time, teachers need encouragement and support to develop and maintain high standards and should not be penalized when students who refuse to follow recommendations about skill development are not successful.

3. Develop a Range of Placement Testing Procedures

Efforts to create valid and reliable placement testing procedures should continue. As these efforts proceed, it must be recognized that the issue of mandatory testing and placement may not be as clear-cut as those who support or oppose it might believe. Although McCabe (2000) has asserted it is absolutely

crucial, it has been subject to legal challenge in California because of its differential impact on minority students (Grubb, 1999). A promising approach has been reported by Schiel and Harmston (2002), who pointed out that giving placement tests to those students scoring below a cutoff point on the ACT is more valid than basing remedial placement on one test score. Matzen and Hoyt (2004) also have discussed alternatives to single tests and give guidance on choosing testing procedures. We have argued against single instrument mandatory testing and placement (Wambach & Brothen, 1990, 2000) because we think that basing decisions about someone's future on one test score while excluding other information is difficult to justify. However, tests can provide information to advisors and students about appropriate course selection and to teachers about what their students' needs are. They can also serve as measures of program effectiveness.

4. Integrate Alternative Teaching/Learning Approaches

Developmental education must continue to be adaptable to a variety of educational situations. Developmental educators have consistently demonstrated that their craft can adapt to a variety of situations. For example, a major state university, subject to a state edict eliminating remedial education programs at 4-year institutions, renamed the developmental education unit "Academic Assistance" and is successfully serving a broad student population with a wide variety of needs (J.L. Higbee, personal communication, March 13, 2002). Our Research I university has successfully eliminated remedial courses in reading and writing by integrating the development of these skills into college-level courses (Wambach & delMas, 1998). Some institutions are less than forthright about their programs. Grubb (1999) pointed out that "prestigious upper-division institutions try to make [developmental education] invisible" (p. 171). Their stealth approach is possible because of the relatively small number of underprepared students they admit. The task is different for institutions that have large numbers of these students. Integrating skill development into all courses is intuitively even more compelling in colleges where most students would benefit from this approach (c.f., Curtis & Harte, 1991).

5. Use Theory to Inform Practice

Developmental educators must make theory a more central part of their practice. Historically, they have followed an ad hoc approach. Committed developmental educators need to do a better job of uniting reflective thought with action. Recent articles in developmental education journals (Cassaza, 1998; Wambach, Brothen, & Dikel, 2000), monographs (Higbee & Dwinell, 1996; Lundell & Higbee, 2001), and the proceedings of a conference on the future of developmental education (Chung & Brothen, 2002) have described how theory can be useful to practitioners. Theory can provide developmental educators with frameworks for understanding why a wide variety of strategies might be effective, depending on the characteristics of the students and the institution.

For example, one approach to theory in developmental education (Wambach et al., 2000) suggests that students coming to college need to believe they are taking college-level courses consistent with their goals. If they do not, they are likely to become discouraged and drop out. This means they should receive challenging course material. But, because of

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their particular histories, they may need support to meet these challenges. Students need to feel that testing/placement programs identify skills important to their future that can be "remediated" in skills courses. For example, vocational students need to recognize the work they do in a reading skills course will help them read and understand difficult manuals in their technical fields.

6. Integrate Underprepared Students into Mainstream Curriculum

Developmental education practice should be geared more toward integrating underprepared students quickly into the regular college curriculum. But before this can happen effectively, some radical changes will need to take place in how college teaching and learning is viewed. Smittle (2003) has summarized research and thinking about how this should be done in developmental education, outlining six principles to help educators become more effective: Committing to the task of teaching developmental students, demonstrating proficient knowledge of the subject matter, considering noncognitive factors, providing an appropriate learning environment, holding students to high standards, and evaluating and developing both developmental programs and one's personal career.

Though Smittle's (2003) guide focused mainly on what one should do personally as a developmental educator, it can lend itself to the overall growth of a developmental community where effectiveness is crucial. However, many college teachers are still focusing on their particular content specialty rather than seeking out explicit knowledge of how to teach the skills that are critical to the practice of their separate disciplines. For example, in the field of psychology, textbook reading is a critical skill (Gurung, 2004), yet few psychology teachers have more than intuitive knowledge of how to structure assignments to improve student reading. A PsycInfo search of all the issues of *Teaching of Psychology*, the journal psychology teachers turn to for teaching ideas, located no articles listed by the key words "reading comprehension," "reading development," or "remedial reading." Reading teachers possess the knowledge that psychologists need. In a system that melds skill and content, reading teachers would teach psychology teachers how to incorporate reading development into their courses.

One powerful strategy for accomplishing this training is paired courses (Boylan, 1999; Bullock, Madden, & Harter, 1987; Miller et al., 1988; Wilcox, delMas, Stewart, Johnson, & Ghere, 1997). Enrolling students in college-level courses that are paired with skill development courses not only benefits students but also creates opportunities for teachers in the college-level curriculum to benefit from the expertise of the skills teacher. Paired courses along with workshops that encourage the development of course syllabi that address development are low cost and effective ways of accomplishing this goal.

7. Adjust Program Delivery According to Institutional Type

Developmental educators need a better understanding of how developmental education can accommodate the history and culture of different types of higher education institutions. Research to construct a typology of institutions would be useful. For example, Wambach (2002) has found that the public Big 10 Research I universities provide academic and social support to small numbers of underprepared students without much use of stand alone skills courses or subject matter courses that also do skill development. Adjunct activities such as orientations, special advising, tutoring, and Supplemental Instruction predominate, probably because research faculty are unlikely to restructure their courses to develop academic skills. We believe this approach works because students deciding to

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matriculate at a research university typically are more motivated or otherwise better prepared to meet the expectations of university faculty than most developmental students in other places (Wambach, 1990; Wambach & delMas, 1998). Even if their "on paper" qualifications look similar, many students at community and technical colleges may be sorely disadvantaged by implementation of approaches that are successful with research university students.

In summary, these seven critical concepts help developmental educators envision institutions in which developmental students identified by valid instruments as motivated to be successful would have challenging courses with supports. They would be encouraged to work harder than they would if they were just learning psychology, history, and biology because they will also be developing the skills to insure future academic success. Faculty who teach such skills-infused courses would need to be open to suggestions from developmental educators who can apply their methods in reading, composition, and mathematics to improve students' skills across the curriculum.

Conclusion

Providing access to postsecondary education to all people—even students who are not fully ready for college-level work—is a primary tenant of the U.S. educational system. Policy makers can argue over which institutions should provide access to nontraditional students, but the reality is that most institutions will serve at least some students who are underprepared relative to their peers. The question is not whether educators will work with these students; the question is how they will do so.

Some form of developmental education will surely persist in all educational institutions; it's simply a matter of how educators choose to go about handling the responsibility of seeing to it that basic skills are improved while quality content is taught and high standards maintained.

Articulation of a professional identity is essential to the positioning of the field in academe, and identifying educational values and goals consistent across developmental education, learning assistance, and all support services can help develop a more unified identity. Just as there are myriad needs that students bring to developmental education programs, there may be more than a few ways to meet those needs. A renewed focus on the ideas of literacy skill development, encouragement, placement testing procedures, adaptability, theory, integration, and typology may

help developmental educators to find a common vision for the educational goals of their programs and their students. Continued research regarding the foundations of developmental education will be necessary to insure the survival and progress of the field.

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