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## **Developmental Education: Demographics, Outcomes, and Activities**

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Developmental education incorporates a wide range of interventions designed to help underprepared students be successful in higher education. These interventions include tutoring programs, special academic advising and counseling programs, learning laboratories, and comprehensive learning centers. They also include developmental courses which represent the intervention most commonly used in higher education.

Developmental courses are found in over 90% of the nation's community colleges and about 70% of our universities (Boylan, Bonham, Claxton, & Bliss, 1992). Learning assistance centers tend to be the favored intervention at research universities. However, there are many examples where both developmental courses and learning assistance centers are provided at community colleges and universities.

### **The Need For Developmental Education**

A recent report by the National Association of Manufacturers (1997) indicated that 6% of American companies expressed dissatisfaction with their workers' mathematics skills, and 55% were dissatisfied with their workers' written communication skills. What was surprising about these findings is that the majority of the workers possessing skills considered inadequate by their employers were graduates of colleges and universities. But the problem began long before these former students entered the work force.

According to a 1996 National Center for Education Statistics (NCES) report just under 30% of students entering American colleges and universities require development in English, reading, or mathematics. According to the American Council on Education (Knopp, 1996), 13% of *all* undergraduates, about 1.6 million students, report having taken one or more developmental courses in college. It's estimated that another million students obtain remediation through tutoring programs or learning centers (Boylan, 1995). This suggests that, of the nation's more than 12 million undergraduates, about 2 ½ million participate in developmental education during any given year.

This fact is the source of great controversy in our public discussions of education. Many legislators and decision makers argue that our public schools should prepare students for college and that tax payers should not have to pay twice for the same education. Those legislators and decision makers should rest assured that we are not paying twice; we are not even paying once.

According to the National Center for Education Statistics (1996), just over half of the students graduating from high school in 1994 took a complete battery of "core" or college preparatory courses. That means that just less than half of our high school graduates didn't take the entire curriculum judged by educators to be a prerequisite for college entry.

This information should not be interpreted as a criticism of our public schools. One of the criticisms of public schools put forward in *A Nation at Risk* in 1983 was that as of 1982 only 14% of our high

school graduates had taken the college preparatory curriculum. Today, half of them do (NCES, 1996). In only 15 years, our public schools have almost tripled the number of high school graduates taking college preparatory courses. That is quite an accomplishment, and one for which they are rarely commended.

Nevertheless, we still have a large number of students who leave high school without the prerequisites for college attendance. Given these data it may be fair to state that we have yet to make the investment or establish the requirements necessary to prepare all high school graduates for entry into college.

It is also probable that a large number of students who took college preparatory courses did not always fully attend to class content yet managed to pass with a C by getting 75% of the answers right on tests. So even some of those who took and passed college-prep courses did not learn everything they should have learned, in spite of the fact tax dollars were invested in providing a college-prep curriculum for them.

But, who goes to college these days. First of all, nearly two thirds of current high school graduates will attempt college at some point (NCES, 1996). Second, a large number of college drop outs, many of whom had academic problems during their first try, return each year in an attempt to complete their degrees. Finally, a very substantial number of returning, adult students are also attending college these days ("The Nation," 1998). Most of these adult students who graduated from high school during a period when participation rates in college preparatory courses were lower than they are today. Because of this, many adult students in higher education are likely to be underprepared for college. Also, for a typical 28-year-old student returning to college, a decade has passed since high school. That student has probably forgotten much of what was once learned.

Given all this, it should not be surprising that almost a third of those entering our colleges and universities are underprepared. We should have no reason to expect them to be fully prepared. That does not mean, however, that they have no business being in college. It does not mean that they are unable to succeed in college. It is the position of professional developmental educators that all these students *deserve* an opportunity to be successful in college. And, to the extent that they are successful in developing their skills in college, they will carry these skills into the the American economy.

Bud Hodgkinson (1985) once noted that, in 1954, there were 14 people working to support every individual receiving Social Security. By the year 2000, there will only be three people working to support every individual receiving Social Security. How well educated would we like those who will support our Social Security to be?

### **The Performance of Developmental Students**

Patricia Cross (1976) once estimated that of the underprepared students who attend college only 10% are likely to obtain a degree without some intervention. Without intervention, the opportunity for these students to be successful is almost nonexistent. And yet, those who are judged to be underprepared and participate in developmental education at community colleges are *slightly more* likely to obtain a degree than the typical community college student. Nationally, 22% of those who enter any particular community college complete an associate's degree at that institution (NCES, 1996). But, 24% of those who participate in developmental education at any particular community college complete an associate's degree at that institution (Boylan & Bonham, 1992). In other words, participating in developmental education at a community college equalizes the opportunity for underprepared students to be successful.

At universities, the situation is about the same. According to the National Center for Education

Statistics (1996), less than 30% of all those who score in the bottom half of the distribution on achievement tests ever obtain a baccalaureate degree.

According to the National Study of Developmental Education (Boylan & Bonham, 1992), however, of those students scoring in the bottom half of the distribution and participating in developmental education, approximately 40% obtain baccalaureate degrees. This is very close to the national average of 45.6% for all students entering universities (NCES, 1996). Again, just because students may enter a university underprepared does not mean that they cannot be successful there given appropriate interventions.

The data clearly suggest that, with appropriate assistance, underprepared students can be just as successful in higher education as their better prepared colleagues. At community colleges, they are slightly more successful and at 4-year institutions they are slightly less successful than students who are considered by their institutions to be fully prepared for higher education.

### **The Characteristics of Developmental Students**

We know that developmental education is a very widespread endeavor in American higher education as well as in a variety of other settings. We know that millions of students participate in one form or another of developmental education. We also know that this participation contributes to their success in higher education as well as their subsequent viability in the work force.

Let us consider just who these students are who participate in developmental education. As we have already noted, they share the characteristic of being underprepared for college. This characteristic is usually measured by SAT and ACT tests as well as by local institutional assessment instruments. Typically, developmental students fall into the bottom half of score distributions on these instruments. There are exceptions to this, however. According to the American Council on Education (Knopp, 1996), 18% of those taking remedial courses have SAT scores above 1000 and about 5% have scores above 1200. About two thirds of those participating in developmental education attend community colleges. Only one third attend universities.

Most of the students participating in developmental education attend college with the intention of attaining either an associate or a baccalaureate degree (Knopp, 1996). According to the National Study of Developmental Education, 77% of the developmental students at 2-year institutions and 98% of those at 4-year institutions have expressed the intention of obtaining a college degree (Boylan, Bonham, & Bliss, 1994b; Boylan, Bonham, Claxton, & Bliss, 1992).

The vast majority of developmental students are white (Boylan, Bonham, Claxton, & Bliss, 1992). Fewer than one third are minorities. Of this one third, the largest group is African American and the next largest is Hispanic. Slightly more than half of the developmental students (estimates run from 52% to 57%) are women (Boylan, Bonham, Claxton, & Bliss, 1992; Knopp, 1996). Well over 80%, of those participating in developmental education are United States citizens. As might be expected, non-citizens are most likely to participate in developmental reading and writing courses and services (Knopp, 1996). Frequently, they participate in developmental education to attain the skills necessary to become citizens.

About one of five developmental students is married (Boylan, Bonham, & Bliss, 1994b). Two out of five receive some form of financial aid; almost 1 in 10 is a veteran (Knopp, 1996). About one in three work 35 hours or more per week (Knopp, 1996). According to the National Study of Developmental Education, their age ranges from 16 to 60 years old (Boylan, Bonham, & Bliss, 1994b) with almost three

in five being 24 years old or younger (Knopp, 1996).

So, who are the developmental students? They are, in most respects, typical college students. Some are talented artists who have trouble in math. Some are outstanding in math and have trouble writing. Some were once good students who have simply been out of school for a long time. Some are just average students and, since college represents a difficult academic challenge, being average is simply not good enough. Developmental education helps them become stronger students. Developmental education helps them make better use of their talents. Developmental education gives them the opportunity to be successful.

Contrary to some public opinion, developmental students are not some vandal hoard that has invaded higher education from a hostile foreign country. They are absolutely not, as one misguided politician called them, "the welfare mothers of higher education." They are our sons and daughters, our mothers and fathers, our friends, and often our coworkers. They are the working poor, the middle class, and occasionally the wealthy classes. They do not attend our institutions as part of some affirmative action initiative. They attend our institutions because they seek educational opportunity. And, educational opportunity is still promoted as a priority for this country and its higher education institutions.

Who are the developmental students? They are the parents of our public school children, they are the people who fight our wars, they are the citizens who vote in our elections, they are the workers who pay their taxes. All they want is the opportunity to go to college and have a chance for success. In essence, they are a lot like the rest of us.

### **The Providers of Developmental Education**

The major providers of developmental education are community and technical colleges. They serve the majority of all students participating in developmental education (Cohen & Brawer, 1990). Almost every community college campus in the country offers some combination of remedial and developmental courses, learning labs, and tutoring programs. Four-year institutions serve about a third of the nation's developmental students (Knopp, 1996). According to national studies, about 75% of our 4-year colleges and universities offer remedial or developmental courses in one or more subjects (Boylan, Bonham, Claxton, & Bliss, 1992; NCES, 1996). A growing number of developmental education programs are being provided through community agencies, through business and industry, and through public schools. The factory based learning center is becoming increasingly common in American industry.

As noted earlier, a variety of services and interventions are offered under the umbrella of developmental education. The most common service is the developmental course designed to teach information, concepts, and skills considered to be prerequisites to success in college and in the work force. Developmental educators also provide a number of courses that teach skills and concepts that are not considered prerequisites and are generally not taught in high school. These include courses in study skills and strategies, critical thinking, and orientation courses such as freshmen seminars.

There are also courses taught in what might be considered that "gray area" between the high school curriculum and the college curriculum. The core curriculum at many universities, for instance, may start at a level that is slightly beyond that of the typical high school graduate, even if that graduate had taken a complete battery of college preparatory courses. In fact, Harvard University, was among the first in the country to recognize this need. In response to it, Harvard initiated the first freshman composition course in the 1870s. Its purpose was to bridge the gap between the writing skills of entering students and the

level of writing skill required by the Harvard curriculum (Maxwell, 1997).

In addition to courses, developmental education includes a variety of academic support services in a variety of settings. Developmental educators work in tutoring programs, they provide individualized instruction in learning labs, and they provide counseling and academic advising to help underprepared students adjust to college. They work in and direct comprehensive learning assistance centers providing a full range of academic and personal development services. Generally, developmental education courses and services are provided through one of three administrative arrangements. Often, all developmental courses are taught through a department or division of developmental studies. In this arrangement, all the developmental reading, writing, and mathematics courses are coordinated under a single unit. Some of these departments or divisions also provide support services such as tutoring and individualized instruction. On occasion, these support services are provided by some other unit such as a learning assistance center. At both 2-year and 4-year colleges and universities, about half the programs are centralized (Boylan, Bonham, & Bliss, 1994a).

Another common arrangement is to have developmental courses taught by academic departments. In this arrangement, developmental English and reading courses are taught by the English department and math courses are taught by the department of mathematics. Again, these departmental courses are usually supported by learning labs or tutoring.

In the third type of arrangement, particularly common at research universities, there are either very few or no developmental courses offered. In such settings, students who are underprepared are served through a comprehensive learning assistance center. These centers provide a full range of services, frequently offering counseling and academic advising as well as tutoring, individualized instruction, and supplemental instruction.

All but our most elite universities are involved in some form of developmental education. The form may vary from institution to institution but the intent does not. There will always be students who are underprepared for some course or curriculum. Developmental education exists for these students and, fortunately, it exists at most institutions of higher education.

### **The Successful Developmental Program**

Unfortunately, not all developmental programs are equal. Some are run more effectively than others. Some use better methods and techniques than others. Some are staffed by more highly trained people than others. Some obtain better results than others.

One of the topics I've been asked to address is what successful developmental programs do to enhance student performance. And it should be noted that a great deal of what successful programs do is not that expensive. Good developmental education does not cost much more than bad developmental education.

Good developmental education results from an institutional commitment to the concept of educational development. Developmental education professionals operate most effectively in an environment that values what they do. In such an environment, developmental education is explicitly stated as part of the mission of the institution. Developmental education courses and services are highlighted in institutional publications. Developmental education is seen as an integral part of the campus academic community and is considered as part of any campus planning effort (Kiemig, 1983; Roueche & Baker, 1987; Roueche & Roueche, 1993).

Good developmental education is, first and foremost, delivered by well-trained people. There is a great deal of literature, theory, and research describing good practice in developmental education. Successful developmental programs are staffed by professionals who know, who understand, and who base their actions on that body of research and literature (Boylan, Bliss, & Bonham, 1997; Maxwell, 1997; Roueche & Roueche, 1993). Not anyone can teach developmental courses just because they have an advanced degree. It takes more than subject knowledge; it also takes knowledge of developmental students and how they learn.

Good developmental education is student oriented and holistic. It places the student at the center of the learning experience. It values what students bring with them and it encourages them to use present knowledge to build further knowledge. It recognizes that all students are developing personally as well as academically: that students have are not only taking classes, they are also working, experiencing relationships, parenting, and living. In short, good developmental education looks at students as total human beings, not just students in the classroom. It attends to both their cognitive development in the classroom and their affective development through counseling, advising, and other enrichment activities that help them become part of the college environment (Casazza & Silverman, 1996; Cross, 1976; Starks, 1994).

Good developmental education connects with the collegiate curriculum. It does not operate in a vacuum. The goals and objectives of a strong developmental program are consistent with the goals and objectives of the institution. The exit standards for developmental education are consistent with the entry standards for the mainstream college curriculum. The best developmental programs are integrated into a seamless progression of academic standards enabling students to easily make the transition from one level of content to the next level of content (Keimig, 1983; Korn, 1979; Roueche & Roueche, 1993).

Good developmental education is well coordinated. The people who teach developmental courses meet regularly. They share the problems they encounter and discuss the solutions they have implemented. The people who run learning labs synchronize their efforts with the faculty teaching whatever courses the labs support. The academic advisors communicate regularly with the instructors of developmental courses. In the best developmental programs, everyone sings from the same sheet of music regarding academic requirements and expectations of students (Boylan, Bliss, & Bonham, 1997; Keimig, 1983; Roueche & Roueche, 1993).

Good developmental education is based on explicit goals and objectives. If the professionals in these programs are to sing from the same sheet of music, the lyrics must be clearly articulated. They must specify what the program wants to accomplish; what it expects from faculty, staff, and students; and what outcomes are desired. Furthermore, these goals and objectives are shared with all those involved in the program: faculty, staff, and students (Boylan, Bonham, Claxton, & Bliss, 1992; Donovan, 1973; Keimig, 1983).

Good developmental education incorporates critical skills into all of its activities. Critical thinking, metacognition, and study skills and strategies are not taught in isolation in a good developmental program. They are an integral part of all courses and are integrated into all program activities. The best developmental programs make it hard for a student to sit in any class or participate in any service without learning how to learn, how to think critically, or how to study effectively (Boylan, Bonham, Claxton, & Bliss, 1992; Boylan, Bliss, & Bonham, 1997; Starks, 1994).

Finally, good developmental education is evaluated. The professionals in successful programs place

an emphasis on evaluating the outcomes of what they do. They do this in part because they are willing to be accountable for outcomes. But they also do it because they want to improve what they do. They use a combination of formative and summative, qualitative and quantitative evaluation methods. The best developmental programs use evaluation data not only to demonstrate what they do but to constantly revise and improve what they do (Boylan, Bliss, & Bonham, 1997; Casazza & Silverman, 1996; Maxwell, 1991; McCabe & Day, 1998).

### **Promoting Excellence in Developmental Education**

Thus far, this paper has described the extent of the developmental education endeavor in American higher education, defined the developmental students, identified who provides developmental education, and described the characteristics of good developmental education. All of these things have been carefully documented and fully supported by the research and the literature of the field. If any of this is to have an effect, however, it must also be translated into action. In essence, the professional community of developmental educators must take a stand.

The National Association for Developmental Education and the National Center for Developmental Education as well as other professional agencies in the field support the following concepts and stand willing to work with any other professional organization, government agency, advisory body, accrediting body, or citizens' advocacy group to promote these concepts.

- 1. Underprepared students have every right to the opportunity for higher education at the institution of their choice.*
- 2. Underprepared students are not second class citizens in academe. They pay the same amount of tuition, attend the same courses, participate in the same activities, and share the same aspirations as any other college student.*
- 3. Those who serve underprepared students as faculty, staff, or administrators are professionals. They deserve and demand the same respect, the same salary, and the same benefits as any other academic professional.*
- 4. Developmental education supports the mission, goals, and objectives of American higher education. It is, therefore, an integral part of the academic endeavor in higher education.*
- 5. Developmental education is based on sound theory and research. It should be supported and practiced accordingly.*
- 6. Developmental education is necessary at all levels of higher education. The specific courses, services, and activities undertaken in support of it may vary depending upon the mission and characteristics of the institution in which it is housed.*
- 7. Developmental education is necessary in a variety of business, industry, community, and government settings. Its philosophy and methods are applicable whenever and wherever the development of human talent is a goal.*

In his inaugural address, President John F. Kennedy told the American people, "Of those to whom much has been given, much is expected." American education has been given much of our nation's resources. Our federal government, our state and local government, and our taxpayers have given

generously to support higher education in the United States. As a result, our higher education system is, undoubtedly, the finest in the world.

The higher education professionals who call themselves developmental educators ask only that this wealth and this excellence be shared, not only with those who have already done well in our educational system but also those who have done less well but still hope to profit from the system in the future.

### References

- Boylan, H., Bonham, B., Claxton, C., and Bliss, L. (1992, November). *The state of the art in developmental education*. Paper presented at the First National Conference on Research in Developmental Education, Charlotte, NC.
- Boylan, H., & Bonham, B. (1992). The impact of developmental education programs. *Research in Developmental Education, 9*(5), 1-4.
- Boylan, H., Bonham, B., & Bliss, L. (1994a). Characteristic components of developmental programs. *Research in Developmental Education, 11*(1), 1-4.
- Boylan, H., Bonham, B., & Bliss, L. (1994). Who are the developmental students? *Research in Developmental Education, 11*(2), 1-4.
- Boylan, H. (1995). The scope of developmental education. *Research in Developmental Education, 12*(4), 1-4.
- Boylan, H., Bliss, L., & Bonham, B. (1997). Program components and their relationship to student performance. *Journal of Developmental Education, 20*(3), 2-9.
- Casazza, M., & Silverman, S. (1996). *Learning assistance and developmental education*. San Francisco: Jossey-Bass.
- Cohen, A., & Brawer, F. (1990). *The American community college*. San Francisco: Jossey-Bass.
- Cross, K. (1976). *Accent on learning*. San Francisco: Jossey-Bass.
- Donavan, D. (1973). *National project II: Alternatives to the revolving door*. New York: Bronx Community College.
- Hodgkinson, H. (1985). *All one system: Demographics of education, kindergarten through graduate school*. Washington, DC: Institute for Educational Leadership.
- Keimig, R. (1983). *Raising academic standards: A guide to learning improvement* (ASHE/ERIC Higher Education Research Report No. 4). Washington, DC: Association for the Study of Higher Education.
- Knopp, L. (1996). Remedial education: An undergraduate student profile. *American Council on Education: Research Briefs, 6*(8), 1-11.
- Korn, E. (1979). Interface in developmental education. *Journal of Developmental Education, 3*(1), 20-21.



Maxwell, M. (1991). *Evaluating academic support systems: A sourcebook*. Kensington, MD: M.M. Associates.

Maxwell, M. (1997). *Improving student learning skills*. Clearwater, FL: H & H Publishing Company.

McCabe, R., & Day, P. (1998). *Developmental education: A twenty-first century social and economic imperative*. Mission Viejo, CA: League for Innovation.

The nation: College enrollment by age of students. (1998, August 28). *The Chronicle of Higher Education*, p. 18.

National Association of Manufacturers. (1997). *The skilled workforce shortage: A growing challenge to the future competitiveness of American manufacturing*. Washington, DC: National Association of Manufacturers.

National Center for Education Statistics. (1996). *Remedial education in higher education institutions in the fall 1995*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

National Center for Education Statistics. (1996). *The condition of education: 1996*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

Roueche, J. & Baker, G. (1987). *Access and excellence: The open door college*. Alexandria, VA: The Community College Press.

Roueche, J., & Roueche, S. (1993). *Between a rock and a hard place: At-risk students in the open door college*. Washington, DC: Community College Press.

Starks, G. (1994). Retention and developmental education: What the research has to say. In M. Maxwell, (Ed.), *From access to success* (pp. 19-27). Clearwater, FL: H & H Publishing.

United States. *National Commission on Excellence in Education*. (1983). *A nation at risk: The imperative for educational reform: A report to the nation and the Secretary of Education, United States Department of Education/by the National Commission on Excellence in Education*. Washington, DC: Author.

### ***Acknowledgement***

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