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ABSTRACT

This document provides an examination of criticism directed towards developmental education. Ten common myths regarding the impact and effectiveness of developmental education are addressed and refuted. Some of the myths reviewed include the history of developmental education; theory-based developmental education programs; faculty training; profiles of developmental students; non-academic experiences; developmental program cost efficiency; and centralized versus decentralized developmental education programs. The review indicates that despite increasing criticism, developmental education programs remain a cost-efficient approach to educating underprepared college students. (Contains 46 references.) (JDM)

The Impact of Developmental Education :

Myths and Misconceptions

Abstract

The Impact of Developmental Education: Myths and Misconceptions

This study offers an in-depth examination of the criticisms leveled toward developmental education. Ten common myths regarding the impact and effectiveness of developmental education were addressed and refuted. Issues discussed included: the history of developmental education; theory-based developmental education programs; faculty training; profiles of developmental students; non-academic experiences; raised admission entrances requirements; developmental education and the community college; developmental program cost efficiency; and centralized vs. decentralized developmental education programs. Results indicated that, despite increasing criticism developmental education programs remain a cost efficient approach to educating underprepared college students.

THE IMPACT OF DEVELOPMENTAL EDUCATION: MYTHS AND MISCONCEPTIONS

At a time when a growing number of institutions of higher education are questioning the need for developmental education programs, several states (New York, Georgia, California, Texas and Florida) have eliminated or drastically lowered the scope of their developmental education programs (Lively, 1993; Lively, 1995; Adelman, 1996; Hebel,1997; and Millian, 1997). Other state colleges and universities have raised admission standards and revoked minority admission preferences (Healy, 1992; Lively, 1995; and Hebel, 1999). As a result, many ethnic minorities, women, returning adults and disabled students may find their academic opportunities limited to community colleges, and vocational-technical schools (Kanter, 1990; Lively, 1993; Lively, 1995; and Hebel, 1999).

Opponents of developmental education make the argument that developmental education programs are ineffective, outdated and cost inefficient (Lively, 1993; Burd, 1996; Gose, 1997; and Yamasaki, 1998). Further, others posit that students seeking to enter college without the required standardized entrance scores are not worthy of admission (Conciatore, 1991; Millian, 1997 and Hebel, 1997). Education advocates opine that underprepared students will not succeed at the college level, if institutions fail to provide support services inclusive of the students' life experiences, cultural values and development needs (Creamer, 1990; Adelman, 1996 and Knopp, 1996).

As America's college campuses continue in becoming more culturally diverse, the services of developmental education can enhance the needs of its underprepared students. (Hebel, 1997). This article examines the myths and misconceptions that

surround the impact and effectiveness of developmental education. This research study outlines and addresses 10 common developmental education myths, and cites research calling those myths into question. The purpose of this article is to challenge educators to rethink the misconceptions and myths about developmental education.

MYTH #1 DEVELOPMENTAL EDUCATION PROGRAMS ARE NOT THEORY BASED.

Developmental education is considered an organizational concept within postsecondary institutions. Developmental education is based on sound theories, practices and research. It should be implemented, evaluated and supported accordingly. Most successful developmental education programs are those that deal with the affective side of being a student. Developmental education utilizes cognitive development in the classroom and affective development through counseling, advising and orientation seminars that aid the student in adapting to the college environment. (Cross, 1976; Starks, 1994; and Casazza & Silverman, 1996). Underprepared students bring to the college campus a plethora of unresolved development issues: low-self esteem, lack of confidence, and high anxiety (Boylan, Bonham and Bliss, 1994; Starks, 1994; Knopp, 1996; and Maxwell, 1997). Developmental education programs are designed to aid students in obtaining the basic skills needed to complete college level courses.

The scope of services in developmental education programs may include classroom instruction, laboratory tutorials, and self-paced activities, experiential activities on and off campus (e.g., plays, poetry readings, job training), and computer-monitored feedback on individual progress for students participating in the program (Tomlinson,1989). In general, developmental education programs utilize four basic components: (a) a mandatory assessment and placement program that

uses valid and reliable instruments; (b) a curriculum design and delivery system with clearly defined goals; (c) support services that rely on multiple intervention strategies; and (d) a systematic evaluation system (Hashway, 1989;Casazza & Silverman, 1996; and Boylan, Bliss, and Bonham, 1997).

Developmental education programs are generally structured into four types of programs: college campus tutorial/remedial centers, college outreach programs, campus assistance centers and off campus assistance centers. The services of developmental education have evolved and expanded to facilitate the nature and needs of culturally diverse students. The primary goal is to provide academic assistance to underprepared students attending college. Developmental education programs are structured to provide students with academic and support services through developmental courses, tutoring, study labs, computer assisted instruction, counseling, peer support groups and orientation seminars (Hashway, 1989; Tomlinson, 1989; Casazza & Silverman, 1996; Boylan, Bliss, and Bonham, 1997 and The Institute for Higher Education Policy, 1998).

MYTH #2 DEVELOPMENTAL EDUCATION PROGRAMS ONLY SERVE UNDERACHIEVERS AND MINORITY STUDENTS.

A considerable number of students manifest some type of weakness or deficiency in one or more subject areas, and simply require assistance in bridging the gap in a specific discipline. Historically, developmental education programs were not implemented for minority students (Bullock, Madden and Mallery, 1990). The presence of underprepared students in American colleges has been documented since the seventeenth century. At Harvard College, tutors in Greek

and Latin were provided for underprepared students. In the mid-eighteenth century, state universities had preparatory departments, those programs dubbed as "college preparatory" served many of the same goals as today's programs. In the days of the colonial college, social structure and wealth, more than ability, decided who went to college (Roberts 1986).

In 1907, more than 50 percent of the students who entered Harvard, Yale, Columbia and Princeton did not meet admission standards, and by 1915 courses had been established to address underpreparedness at 350 colleges in the nation (Maxwell 1997) continuing into the middle of the twentieth century with the establishment of the GI bill. Until the 1960s most students attending Harvard and other Predominantly White Institutions (PWI) were of European descent. And those universities and colleges implemented developmental education programs to ensure the success of their students. America has always implemented developmental education programs to educate its underprepared students (Roberts, 1986; Erwin and Snoyer, 1989; and Bullock, Madden and Mallery, 1990).

Seventy eight percent of the nation's colleges and universities offer at least one developmental course (The National Center for Education Statistics, 1996). Fifty-seven percent of developmental students are women, and eighty percent are American citizens. Fewer than one third of developmental students are minorities. Of that one third, Hispanics and African-Americans occupy a substantial proportion. The vast majority of developmental students are White (Boylan, Bonham, & Bliss, 1994; Knopp 1996; Hebel, 1997; and NCES,2000).

Ignash (1997) stated that developmental education was not limited to "traditional" freshmen. Over 27 percent of entering freshmen in developmental courses were 30 years of age or older Among entering freshmen who took a developmental class in 1992-93, 31 percent were 19

years old or younger, while 46 percent were over 22 years of age, the traditional age of baccalaureate degree completion. Fifty-six percent of students enrolled in developmental courses were freshmen, 24 percent were sophomores, 9 percent were juniors, and 9 percent were seniors (NCES, 1996). Traditionally , developmental students share two or more of the following characteristics:

1. Not prepared by high school curriculums for college level work.
2. Adult learners returning to school.
3. Academic or physical weakness not diagnosed in secondary school.
4. Foreigners who acquired their elementary or secondary education in a foreign country.
5. Field dependent learners.
6. Possess an external locus of control.
7. Low self-esteem and achievement motivation.
8. High scores on measures of anxiety.
9. Socio-economically disadvantaged (Boylan, Bonham and Bliss, 1994; Knopp, 1996; and Maxwell, 1997).

MYTH #3 DEVELOPMENTAL EDUCATION PROGRAMS PENALIZE STUDENTS SEEKING A FOUR YEAR DEGREE.

There are no penalties for being enrolled in a developmental education program. The literature suggested that students who enrolled in a developmental education program seeking a four-year degree tend to fare better than marginal students not enrolled in developmental courses. Although students may spend a semester or even a year longer at the university, they are better prepared and more likely to graduate (Adelman, 1996; Knopp, 1996; Ignash, 1997; and IHEP, 1998).

Various institutions offer developmental courses, however several do not give degree credit

for such courses. Seventy one percent of colleges and universities grant institutional credit, which determines the student's enrollment status and is recorded on the student's transcript. Eleven percent of existing developmental programs grant elective degree credits , 13 percent grant no credit, and about 5 percent grant subject degree credit. Those institutional credits were generally for developmental reading, writing, and mathematics. In general, 75 percent of students enrolled in developmental courses passed or successfully completed those courses. However, the percentage of students passing developmental courses was 10 percent lower at community colleges than at 4- year colleges (NCES, 1996).

The retention rate tends to be higher for students enrolled at four year institutions (84%) than at two year institutions (55%). Developmental students enrolled at 4-year colleges have the opportunity to embrace the full college experience, thus, their adjustment period to college life is reduced (NCES, 1996). Unlike the community college, the senior college environment generates unique academic and social demands. Developmental students are compelled to grapple with intense demands on their time: selecting a career; attending class lectures; completing assignments; and working and residing in a residential setting (Penn, 1993, Boylan, Bliss, and Bonham, 1994;

MYTH #4 TRADITIONAL METHODS OF INSTRUCTION PROVIDE THE MOST EFFECTIVE MEDIUM FOR TEACHING UNDERGRADUATE STUDENTS.

The traditional methods of instruction do not always provide the most efficient means of teaching underprepared students (Lowery and Young, 1992 and Pascarella and Terenzini, 1995). Underprepared students require well trained instructors who recognize their nature, needs and learning styles. Developmental education recognizes that instruction must be learner-centered. Basic reading, writing, and math skills improvement have been incorporated into the thrust of most

developmental services by means of diagnosis, evaluation, and tutorial assistance, which are accompanied by counseling and peer support to address attitudinal and self management variables (Gose, 1997 and Yamasaki, 1998).

Developmental instructional methods are sensitive to individual student differences in speed of acquiring content. Developmental education employs a variety of instructional methods: individualized instruction; computer-assisted instruction, classroom lectures, laboratory instruction, and cooperative/collaborative instruction (Hashway, 1989; Lowery and Young, 1992; and Starks, 1994) . Individualized and collaborative teaching approaches require active student involvement and participation in the teaching-learning process. Such methods encourage the student to commit greater focus and involvement in their learning. Although these methods of instruction differ in technique, they emphasize several basic principles:

1. smaller modular units of instruction,
2. student mastery of one unit before moving on to the next,
3. Periodic reporting of student's academic progress,
4. Participant learning versus passive learning (Cross, 1976; Tomlinson, 1989 and Pascarella & Terenzini, 1995)

MYTH # 5 ACADEMIC EXPERIENCES ARE THE PRIMARY INFLUENCES ON STUDENT LEARNING AND DEVELOPMENT.

External factors often have a more notable influence on student learning than academic experiences. Environmental factors affect both student learning and personal development (Creamer, 1990;Conciatore, 1991; Maxwell, 1997; and Schroeder, 1999). Successful developmental education programs address the development of "the whole student" in terms of

psychosocial, affective and cognitive domains. The total impact on the student's cognitive, affective and psychosocial development may depend on the student's level of campus involvement. Both academic and institutional environments contribute to what students gain from college (Penn, 1993).

Developmental education programs must remain sensitive to the socio-cultural background that the individual student brings to the educational environment, particularly, in terms of personal, interpersonal, affective and cognitive domains. Successful developmental education programs employ a multidimensional, interdisciplinary approach to improve the academic preparedness of its clientele. The developmental student is often one who possesses the basic skill level, but has reached a temporary obstacle caused by their knowledge base and new information they're expected to learn on a timely basis (Tomlinson, 1989; Conciatore, 1991; Lowery and Young, 1992; Maxwell, 1997;and Knopp, 1996). Developmental education programs address those obstacles, by instructing students at their current academic level and preparing them for the requirements of college level course work (Casazza and Silverman, 1996 and Adelman, 1996).

The key to enhancing learning and personal development is to create conditions that motivate and inspire students to devote time and energy to educational purposeful activities, both inside and outside the classroom (Cross, 1976; Lowery and Young, 1992; and Boylan, Bliss and Bonhan, 1997) Student satisfaction with the collegiate experience, and the resulting identification of the student with the institution, are often related to the integration of formal classroom activities with campus co-curricular activities. Retention rates improve through systematic, orchestrated, and combined efforts of faculty and student affairs' staff having common goals and working together (Schroeder, 1999 & Penn, 1993).

MYTH #6 REDUCING THE NEED FOR DEVELOPMENTAL EDUCATION PROGRAMS CAN BE ACHIEVED BY RAISING ADMISSION STANDARDS.

Test validity, reliability, norming procedures and criteria used to place students in college are based on decisions by educators. Specific issues include: what is proper to measure; what instruments should be used; and how measurements or assessments should be done. These decisions rest upon values which are influenced by varying sociopolitical attitudes and beliefs (Bers & Smith, 1991). Many consumer advocates, civil right organizations and educators remain concerned about bias in testing and question the predictive validity of instruments, and decry the lack of empirical evidence available on the effects of assessment procedures on ethnic minorities, women and the disabled (Colby and Opp, 1987, Kanter, 1990; Lunneborg & Lunneborg, 1985; and Yamasaki, 1998).

If admission standards are raised, institutions may very well be excluding talented students who have scored low on some prescribed standardized test that does not give the true measure of the students' ability. Even with raised admissions standards, there will still be a need for developmental education programs (Hughes and Nelson, 1991 and Yamasaki, 1998). Minorities traditionally score lower on standardized tests than Whites (Adelman, 1996). Raising admission entrance scores is viewed as a direct factor in limiting educational access for numerous underprepared students. Raising standards tends to benefit those students who already perform well, but does not service those students performing poorly. Raising standards does not make a difference, if no change in teaching strategies or enrichment of learning experience are provided for underprepared students (Kanter, 1990; Hughes and Nelson, 1991; Boylan, Bonham, and Bliss, 1994; Burd, 1996; and Healy, 1996).

There are no consistent standards about what constitutes "college level" work. Instead of national or regional standards for developmental education, students are placed in developmental courses based on admission requirements by a particular institution or college board. Admission standards vary from institution to institution depending on its classification and mission. (e.g., private, public, community, senior). Standardized test scores are usually the sole medium for placing students in developmental classes (Kanter, 1990; Hughes and Nelson, 1991; and Healy, 1996). Students who test poorly on standardized tests are placed accordingly, regardless of their previous academic success. The difference that separates students needing developmental classes and those who don't is very marginal. The literature suggests that developmental education admission policies vary greatly among institutions with similar missions (Weissman, Silk, and Bulakowski, 1997, and IHEP, 1998).

It is not always the low-achiever who needs developmental courses; gifted students, too, have recorded deficiencies in various academic levels. Critics of the secondary school system correlate the failure of underprepared students with the school system's inadequate funding, underprepared and underpaid instructors, biased administrative policies, and outdated curriculums (Colby and Opp, 1987; Starks, 1994; and Breneman and Harlow, 1998). Numerous secondary schools do not offer a college preparatory curriculum. Also, a number of instructors hail from teacher education programs that are deficient in resources, facilities, and lack a curriculum which includes multicultural awareness and counseling courses. Developmental education programs address those obstacles, by teaching students at their current academic level and advancing their basic skills to college level requirements (Tomlinson, 1989, Maxwell, 1997; Boylan, Bonham and Bliss, 1994; and Yamasaki, 1998).

MYTH #7 DEVELOPMENTAL EDUCATION SHOULD ONLY BE OFFERED AT COMMUNITY COLLEGES.

Many educators believe that it is not a good idea to offer developmental education programs exclusively at the community college level (Jacobson, 1993; Lively, 1993; Adelman, 1996; and Hebel, 1999). Community colleges enroll traditional and advanced students as well as developmental students. Although, community colleges are noted for their success with developmental students, they are overwhelmed and overburden with dilemmas: a growing transfer population; a culturally diverse student body ; redefining their missions to address the needs of a changing workforce; limits of federal financial aid; and state budget cuts (Jacobson, 1993 and Hebel, 1999).

It seems logical that the senior institutions would qualify as leaders in providing progressive programs of academic development. Specifically, colleges and universities maintain schools of education, counseling, and social work with professors and graduate students specializing in academic research and development (Lively, 1993; Healy, 1996; IHEP,1998; and Hebel, 1999). The graduation rate appears to be higher for 4-year college students vs. community college students. Developmental students at 4 year colleges graduate at a rate of 44 percent compared to a rate of 24 percent at community colleges. Specifically, developmental students enrolled at community colleges graduated at a rate of 24 percent compared to a rate of 22 percent of their academically prepared peers. Forty percent of developmental students graduated at 4-years institutions compared to 48 percent at research institutions. The literature reported that developmental students tend to graduate at rates equivalent to their better prepared peers (NCES, 1996).

If standardized test scores remain the sole source for placement of developmental students, the students who would be disproportionately referred to community colleges would be women, returning adults, Hispanics and Blacks (Lively, 1993, Healy, 1996 and Hebel, 1999). Education critics suggested the aforementioned criteria standards would only increase the number of minorities warehoused at community colleges and reduced their likelihood of attending a four-year college. There is a general pattern of higher developmental enrollments and lower developmental pass rates at community colleges than at 4-year colleges (NCES, 1996). This trend only heightens the continuing spiral of educational, economical, gender and racial disparities amongst minorities.

MYTH # 8 DEVELOPMENTAL PROGRAMS ARE NOT COST EFFICIENT.

To the contrary, developmental education programs are cost-efficient. The most recent analysis of developmental education costs suggested that developmental education programs absorb approximately $2 billion annually in a public higher education budget of $115 billion-less than 2 percent of expenditures (Breneman & Haarlow, 1998). On average, underprepared students were enrolled in less than 7 credits of developmental education at estimated $1000 per student. Those students on financial aid on average enrolled in only 4.9 developmental education credits (Day & McCabe, 1997 and Yamasaki, 1998).

How costs are distributed among several activities within a college can and do vary widely. Reported figures usually do not separate developmental education costs associated with traditional college age freshmen. Some figures only include direct faculty salary costs of developmental courses, while others calculate the cost of FTE students. Some developmental courses were embedded within the traditional academic department and had no separate identity. Other factors which hampered estimating the cost efficiency of developmental education include: fixed budgets,

basic budgets without adjustments for enrollment changes, no processes for reviewing developmental education costs, and student evaluations to assess course effectiveness (Adelman, 1996; Day and McCabe 1997; IHEP, 1998; and Breneman and Harlow, 1998).

Salaries and non-tenured positions hamper the efficiency of developmental education programs (IHEP, 1998). Currently, developmental educators and personnel are not equitably compensated when compared to their peers. Employees in the field are subjected to uncompetitive salaries, unstable sources of funding, non-incentives for research & faculty development, and non-tenure track & adjunct positions. NCES (2000) reported that 42 percent of all instructional faculty and staff worked part-time, and part-timers constituted a majority of instructional faculty and staff at community colleges (60 percent compared to 23 to 39 percent at 4-year colleges). Recruitment of qualified personnel remains a constant problem at numerous institutions due to low priority for developmental education, particularly regarding delivery services, provisions for training developmental faculty and staff and uncompetitive salaries.

Myth # 9 DEVELOPMENTAL CLASSES SHOULD BE TAUGHT BY INDIVIDUAL ACADEMIC DEPARTMENTS.

At numerous institutions of higher learning, developmental classes are taught within their perspective academic disciplines, by various instructors or graduate students. While this practice may be viewed as an attempt to retain underprepared students, the disadvantages far outweigh the advantages. Efforts to retain and develop underprepared students may vary from department to department depending on the department's budget, availability of resources, testing standards, trained developmental faculty and priorities for educating developmental students. The endeavors to develop the underprepared students may be genuine yet lack the direction and focus of a

comprehensive developmental education program (Colby and Opp, 1987; Tomlinson, 1989; and Adelman, 1996).

In general, when developmental students are taught within a decentralized program of academic support services, they lack the consistency of services, faculty & staff and retention commitment. If the decentralized department services are viewed as ineffective, there may not be a standard evaluation process to review such practices and implement improvements. If department evaluation reviews are implemented and a need for improvement is warranted, the needs may be restricted by budget and time constraints, personnel shortages and the availability of campus resources (Farmer, 1992).

Developmental education programs should be implemented in a central location, which allows for the uniformity and optimum uses of resources (Colby and Opp, 1987; Hashway, 1989; Tomlinson, 1989 and Newburger, 1999). It is easier to improve the services of one centralized program, than several programs scattered around the campus. A centralized developmental education program allows those trained in developmental education to do so, instead of relying on faculty members who may not be trained as developmental faculty and staff. A centralized approach to developmental education services is the most efficient method of servicing the needs of developmental students (Newburger, 1999).

MYTH # 10 DEVELOPMENTAL PERSONNEL DO NOT REQUIRE SPECIAL TRAINING OR CERTIFICATION.

Developmental educators and counselors should be trained in theories, pedagogy and diversity. Educators must be sensitized to the nature and needs of the clientele they teach. Effective developmental education is facilitated by well-trained personnel. Successful developmental

education programs are staffed by professionals who know, who understand, and who base their actions on that body of research and literature. They should regularly attend workshops and seminars to keep up to date on current trends and issues in the field. Possessing an advanced degree does not necessarily qualify an instructor to teach developmental students. It takes more than subject knowledge; it takes knowledge of developmental students and how they learn (Boylan, Bliss & Bonham 1997; Maxwell 1997).

Developmental counselors encourage students to ask thought provoking questions regarding their academic studies, and utilize campus resources to research the solutions. Developmental counselors are responsible for assisting students in selecting their courses of study and scheduling their class schedules around the outcomes of their career aspirations. Counselors should be trained to work with developmental students to: (a) evaluate and assess their development goals and needs; (b) assist in determining appropriate academic and career objectives and experiences; (c) design and implement programs and activities which foster development; and (d) evaluate and document academic progress and personal development (Meyer, 1996; Habley and Morales, 1998; and Yamasaki, 1998).

In particular, developmental educators and counselors should seek to develop academic talents, stimulate the individual's learning process, and assist students in replacing poor study habits with effective student habits. Such programs should also embody a content that will optimize the learning experience for the student by using methods and materials that challenge and provoke curiosity and are also in congruence with the student's general ability level and their socio-cultural identity (Tomlinson, 1989, p.70). Developmental students are in need of (interdisciplinary) instruction that will develop their ability to engage in critical thinking and creative problem solving

that can carry them beyond the basic skills exams and beyond core course levels (Lowery and Young, 1992; Starks, 1994, Pascarella and Terenzini, 1995; and Maxwell, 1997).

Summary

In summary, the concept of developmental education is not an outdated, ineffective means of educating today's underprepared students. Developmental education is a vital component in higher education institutions' endeavors to prepare underpreparded students for college level course work. The research literature reported that since the seventeenth century, students have attended college underprepared and developmental education programs were implemented to ensure their success. There are no consistent standards on what constitutes "college level" work. It is not always the low-achiever who needs developmental courses, gifted students too, manifest some type of weakness or deficiency in one or more academic levels, and simply require assistance in bridging the gap. Although developmental students may spend additional time pursuing their degree, according to the literature, they are better prepared and more likely to graduate (Knopp, 1996; Ignash, 1997; Maxwell, 1997 and IHEP, 1998).

The basic purpose of developmental education is to accept students at their current level of academic development and prepare them for college level courses. In order to advance students' academic progress to the required college level, developmental education programs supply the services of academic advising, testing and placement, basic skill studies, counseling, computer-assisted instruction labs, tutoring and orientation. However, the means used to facilitate those efforts remain a constant source of undeserved criticism. Developmental education has been reputed for prolonging the length of time in obtaining a baccalaureate degree, diluting the prestige of higher education, operating inefficiently and ineffectively, and

servicing only minority students. The research literature suggests these myths and others are unfounded and without merit.

Furthermore, the literature suggests that developmental education programs : (1) are cost efficient and effective; (2) are structured and theory based ; (3) serve culturally diverse students; and (4) support the mission of colleges and universities. Institutions of higher learning enrolling developmental students would be wise to adapt a structured approach to facilitate the nature and needs of its clientele. Developmental education remains the best structured approach to educating underprepared students and its services continue to be efficient, effective and essential.

References

Adelman, C.(1996, October 4). The truth about remedial work. **Chronicle of Higher Education.** (website:chronicle.com/che-data/articles.dir/articles-43.dir/ issue-06 .dir/31a05601.htm).

Bers, T.H. & Smith, K.E. (1991). Assessing assessment programs: The theory and practice of examining reliability and validity of a writing placement test, **Community College Review,** 18 (3). 17-27.

Boylan, H., Bliss, L., & Bonham, B. (1997). Program components and their relationships to student performance. **Journal of Developmental Education**, 20 (3), 2-9.

Boylan, H., Bonham, B., & Bliss, L. (1994). Who are the developmental students? **Research in Developmental Education**, 11(2), 1-4.

Breneman, D.W., & Haarlow, W. N. (1998). **Remediation in higher education.** Washington, DC: Thomas B. Fordham Foundation

Bullock, T.L., Madden, D.A., and Mallery, A.L. (1990). Developmental education in American universities: Past, present, and future. **Research and Teaching in Developmental Education.** 6, (2)

Burd. S. (1996, April 12). Colleges fear lawmakers will cut funds for remedial students. **Chronicle of Higher Education**, (website:chronicle.com/che-data/articles.dir/articles-42.dir/ issue-31 .dir/31a03801.htm).

Casazza, M., & Silverman, S. (1996). **Learning assistance and developmental education**. San Francisco: Jossey-Bass Publishers.

Colby, A., and Opp, R. (1987). **Controversies surrounding developmental education in community colleges.** (Report No. JC870428). California,US: (Eric Document Reproduction Service No. ED 286557).

Conciatore, A. M. (1991). Educators, policymakers discuss problems of underrepresented students at community colleges. **Community College Week, 4,** (9), 6-7.

Creamer, D.G. (1990). **Administrative and Management Theories: Tools for Change.** Atlanta, GA: Accelerated Development, Inc.

Cross, K. (1976). **Accent on learning**. San Francisco: Jossey-Bass Publishers .

Day, P.R. & McCabe, R.H. (1997, October). **Remedial education: A social and economic imperative**. Paper submitted to the American Association of Community Colleges. Washington, DC:(Website:/199.75.76.16/research/remediation.htm. [1999.January].

Erwin, R. And Snoyer, J. (1989). Can colleges without developmental education programs survive? **Research and Teaching and Developmental Education. 6,** (1).

Farmer, V. (1992). Developing a perspective on assessment of effectiveness in developmental education. **Educational Research Quarterly**, 16 (1), 25-33 .

Gose, B. (1997, Sept 19).Tutoring companies take over remedial teaching at some colleges. **Chronicle of Higher Education**. (website:chronicle.com/che-data/articles.dir/art-44.dir/issue-19/04a04401.htm).

Habley, W.R., and Morales, R. (1998). **Current practices in Academic Advising.** Kansas City, KS: Nacada.

Hashway, R. (1989). Developmental learning centers designs. **Research and Teaching in Developmental Education. 5**, (2)

Healy, P. (1996, July 12). Mississippi colleges await results of new admissions standards. **Chronicle of Higher Education**, (website:chronicle.com/che-data/articles.dir/articles-42.dir/issue -44.dir /44a03001.htm).

Hebel, S. (1999, April 4).Georgia strives to raise standards without leaving students behind. **Chronicle of Higher Education,** (website:chronicle.com/weekly/v45/i31/35a03401.htm).

Hebel, S. (1999, April 4). As need for remediation grows, 2-year colleges must fill the gap, officials agree. **Chronicle of Higher Education,** (website:chronicle.com/ weekly/ v46 /i16/16a03601.htm).

Hebel, S. (1999, December 10).In CUNY remediation debate, the numbers--and the strategy are in dispute. **Chronicle of Higher Education**, (website:chronicle.com/weekly/ v45/i31/35a03401.htm).

Hughes, R. E. and Nelson, C. H. (1991) .Placement scores and placement practices and empiral analysis, **Community College Review, 19**, (1). 42-49.

Ignash, J. M. (1997). Who should provide postsecondary remedial/developmental education? In J. Ignash, (Ed.) **Implementing Effective Policies for Remedial and Developmental Education**. New Directions for Community Colleges, No. 100. San Francisco: Jossey- Bass Publishers.

The Institute for Higher Education Policy. (1998) **College remediation: What it is, what it cost, and what's at stake.** Washington, DC: The Ford Foundation.

Jacobson, R.L. (1993, July 21). Challenges for community colleges. **Chronicle of Higher Education,** (website:chronicle.com/che-data/articles.dir/articles-39.dir/issue-46.dir/46a 01501.htm).

Kanter, M. J. (1990). Is placement a barrier to access for under represented students in community college? **Community College Week**, 2 (18), 10-11.

Knopp, L. (1996). **Remedial education: An undergraduate student profile**. American Council on Education: Research Briefs, 6 (8),1-11.

Lively, K. (1995, March 31). Ready or not. **Chronicle of Higher Education,** (website:chronicle.com/che-data/articles.dir/articles-41.dir/issue-29.dir/29a02301.htm).

Lively, K. (1993, February 24). States try to end remedial courses at 4-year colleges. **Chronicle of Higher Education,** (website:chronicle.com/che-data/articles.dir/articles-39.dir/issue-25.dir/25a02801.htm).

Lowery, B.R. and Young, P.B. (1992). Designing motivational instruction for developmental education. **Research and Teaching in Developmental Education. 9**, (1).

Lunneborg, P., & Lunneborg, C.E. (1985). Student-centered versus university-centered solutions to problems of minority students. **Journal of College Student Personnel** 26 (3), 251-252 .

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

Meyer, M.D. (1996). Teacher preparation in developmental education: From a standing stall to a running start. **Journal of Research and Teaching in Developmental Education. 13**, (1).

Millian, J. (1997, Jan 17).Remedial-education program in Texas faces uncertain future. **Chronicle of Higher Education,** (website:chronicle.com/che-data/articles.dir/articles-43.dir/issue-13.dir/19a03504.htm).

National Center for Education Statistics. (1996).**Remedial education in higher education institutions in the fall 1995.** NCES 97-584, By Laurie Lewis and Elizabeth Farris. Bernie Greene, project officer. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

National Center for Education Statistics. (2000). The context of postsecondary education: faculty characteristics. **The Condition of Education 2000.** NCES 97-470, Washington, DC: U.S. Department of Education, (website:nces.ed.gov / pub.2000 / coe2000 /section5 / indicator57.htm).

Newburger, J.C. (1999). Executive board position paper research and recommendation for developmental education and /or learning assistance programs in the state of New York. **Research and Teaching in Developmental Education. 16**, (1).

Pascarella, E.T., & Terenzini, P.T. (1995). The impact of college on students: Myths, and some other things that may not be true. **NACADA Journal**. 15 (2), 26-33 .

Penn, J. R. (1993). Unifying student and academic affairs: The failure of "student development." **College Student Affairs Journal**, 13, 17-23 .

Roberts, G.H. (1986) **. Developmental education: A historical study**. (Report No. HE-01-99-15). Louisiana, US: (ERIC Document Reproduction Service No. ED 276 395).

Schroeder, C.C. (1999). Forging educational partnerships that advance student learning.In G.S. Blimling & E.J. Whitt (Eds.) **Good practice in student affairs: Principles to foster student learning**, (pp. 136-156) San Francisco: Jossey-Bass Publishers.

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

Tomlinson, L. (1989). **Postsecondary developmental programs: A traditional agenda with new imperatives. report No. 3.** Washington, DC: School of Education and Human Development. The George Washington University.

Weissman, J., Silk, E., & Bulakowski, C. (1997). Assessing developmental education Policies. **Research in Higher Education,** 38 (2) 187-200 .

Yamasaki, E. (1998). **Effective policies for remedial education.** (Report No. JC980144). California,US: (Eric Document Reproduction Service No. ED 416940).

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