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ABSTRACT

After providing evidence of the decline of stud academic ability and identifying some of the factors influencin decline, this paper examines the role of community colleges in providing compensatory education for the growing population of students who are underprepared for college-level work. This examination begins by tracing the development of the community college and discussing the growth and magnitude of its involvem remedial education. The next sections of the paper cite researc studies and describe programs that provide answers to questions related to the integration of remedial programs into the colleg curriculum, particularly into transfer programs; the relationsh between compensatory education and retention and articulation; the role of counselors and guidance personnel in efforts to com illiteracy and attrition. After discussing the effects of incre involvement in compensatory education on the faculty, academic standards, and integrity of an institution, the paper considers charges that segregated remedial programs are racist and class- and questions the public's willingness to pay the high costs of remedial programs. Finally, the paper makes several suggestions regarding the community college's course in providing developme education, including a recommendation that remedial courses be integrated into the regular curriculum. (AYC)

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FUNCTIONAL LITERACY FOR COMMUNITY COLLEGE STUDENTS*

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Numerous critics have taken the position that the schools may teach people to read and write but they fail to teach them to think. As long ago as 1869, Parkman noted that schools have produced an immense number of readers, but what thinkers are to be found may be said to exist in spite of them. One hundred years later Ciardi complained that "...the American School System has dedicated itself to universal subliteracy. It has encouraged the assumption that a clod trained to lip-read a sports page is able to read anything. It has become the whole point of the School System to keep the ignorant from realizing their own ignorance. . . An illiterate must at least know that he cannot read and that the world of books is closed to him" (1971, p. 48). And Mencken commented that "the great majority of American high school pupils, when they put their thoughts on paper, produce only a mass of confused puerile nonsense. . . They express themselves so clumsily that it is often quite impossible to understand them at all" (1976, p. 33).

More recently the charge has been raised that not only do students fail to become intelligent, they do not even learn the rudiments of reading, writing and arithmetic. In The Literacy Hoax: The Decline of Reading, Writing, and Learning in the Public Schools and What We Can Do About It (1978), Copperman reports studies showing that over 20 million American adults, one in every five, are functionally illiterate; that is, incapable of understanding

*Portions of this article were taken from The American Community College: An Interpretative Analysis by Arthur M. Cohen and Florence B. Brawer, to be published Fall, 1981 by Jossey-Bass, San Francisco

basic written and arithmetic communication to a degree that they can maneuver satisfactorily in contemporary society. Many commentators, Copperman among them, do not blame the schools alone. Each generation's cohort of criers has had a favorite target, but most of them eventually disparage the public schools.

Broad-scale denunciations are one thing; accurate data quite another. Information on the literacy of the American population over the decades is difficult to compile even though data on the number of people completing years of schooling have been collected by the Bureau of the Census for well over one hundred years. One reason that inter-generational comparisons are imprecise is that different percentages of the population have gone to school at different periods in the nation's history; in fact, a century ago only the upper socio-economic classes completed secondary school or enrolled in higher education. Further, the United States does not have a uniform system of educational evaluation.

Nonetheless, the available evidence suggests that the academic achievement of students in schools and colleges registered a gradual improvement between 1900 and the mid-1950s, an accelerated improvement between the mid-1950s and the mid-1960s, and a precipitous, widespread decline between the 1960s and the late 1970s. Results of the Scholastic Ability Tests taken by high school seniors showed mathematical ability at 494 in 1952, 502 in 1963, and 470 in 1977; verbal ability went from 476 in 1952 to 478 in 1963 and dropped to 429 in 1977 (Copperman, 1978). American College Testing Program and Graduate Record Examination scores also declined notably between the mid-1960s and the latter 1970s, and the National Assessment of Educational Progress reported that 17-year-olds' command of the mechanics of writing declined between 1970 and 1974 (Educational Testing Services, 1978).

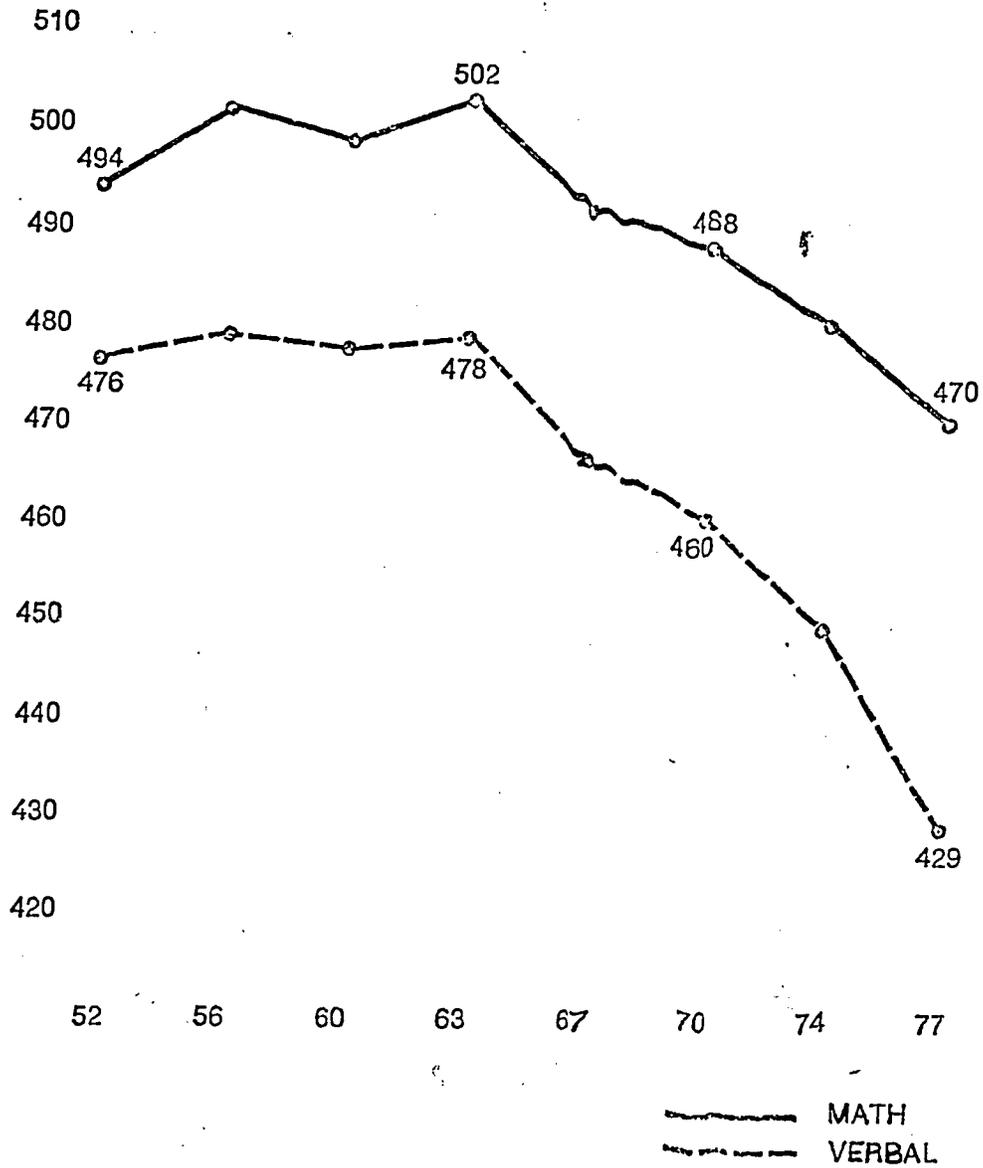
Reports emanating from the colleges confirm this slide. Several surveys of faculty have found them deploring their students' lack of preparation (Ladd and Lipset 1978; Brawer and Friedlander, 1979; Center for the Study of Community Colleges, 1978). The Educational Testing Service (ETS) notes: "At the University of California at Berkeley, where students come from the top eighth of California high school graduates, nearly half the freshmen in recent years have been so deficient in writing ability that they needed a remedial course they themselves call 'bonehead English'" (p. 2). And although most of the freshmen at the City University of New York had at least an 80 average in high school, one-third of them lacked even basic literacy, and 90 percent took some form of remedial writing instruction. The ETS list of institutions where entering freshmen were found to be seriously deficient in basic communication skills reads like a list of the most prestigious universities in the country: Harvard, Yale, Cornell, Brown and Stanford are among the countless other institutions that have been forced to introduce some form of basic writing instruction (1978).

It is not the purpose of this paper to recount the social and educational forces leading to the decline in student abilities that apparently began in the mid-1960s and accelerated throughout the 1970s. Suffice to say that numerous events coalesced: the coming of age of the first generation reared on television; a breakdown in respect for authority and the professions; a pervasive attitude that the written word is not as important as it once was; the imposition of various other-than-academic expectations on the public schools; and a decline in academic requirements and expectations at all levels of schooling. This last variable is worthy of elaboration because it is the only one that is within the power of the schools to change directly.

Several premises underly schooling. For example, students tend to learn what is taught; the more time they spend on a task, the more they learn; they will

Graph 1

SAT SCORES, 1952 TO 1977



Source: Copperman, 1978, p. 37.

take the courses required for completion of their programs. Hence, when expectations, time in school, and number of academic requirements are reduced, student achievement, however measured, drops as well. ETS reported, "The nub of the matter is that writing is a complex skill mastered only through lengthy, arduous effort. It is a participatory endeavor, not a spectator sport. And most high school students do not get enough practice to become competent writers" (p. 4). Since the 1960s the schools have put less emphasis on composition and even in the composition courses, "creative expression" is treated at a higher level than are grammar and the other tools of the writer's trade.

Not only are students taking less science, math, English, and history, but in those academic classes that they do take, the amount of work assigned and the standard to which it is held have deteriorated badly. Further, the readability level of the texts used in secondary schools and two-year colleges has dropped markedly. Copperman cited textbook publishers who proclaim that "They can no longer sell a textbook that has been written with a readability level higher than two years below the grade for which it is intended" (1978, p. 81).

The criticism of the schools' ability to teach students to read and write extends to higher education. Specialization is a favorite target. Because each academic discipline has its own jargon, the students learn to be literate only within the confines of those courses they take and never learn to read or write in general. Each college department is criticized for desiring primarily to produce majors and graduate students in its own discipline and thus never to be concerned with literacy in general. The English departments come in for their share of attack. The professors who are concerned with literary criticism and esoterica, who demean the teaching of composition and those who do it, are familiar figures. And what is said about higher

education generally also applies to community colleges, albeit in varying degrees.

The Community College

The community college was developed during the 20th century as a distinctly American education form combining several missions. It is designed to fit into the educational mainstream reaching from kindergarten through graduate school by offering four types of educational experiences: capstone education for those who will not progress much beyond the secondary school; the first two years of college for those who will go on to baccalaureate and graduate studies; occupational training for those who seek employment; and casual, community-based education for those who come to pick up an occasional course. As they have evolved, these colleges have assumed the roll of expanding access for everyone, and of providing additional schooling for those individuals who might otherwise have been excluded from educational opportunities beyond the mandated levels. This function puts the college in the forefront of democratizing education, and most two-year colleges pride themselves on being non-selective, allowing everyone the chance to progress to the limits of their own ability.

At present there are 1,230 public and private two-year colleges in the United States (AACJC, 1979). The enrollment figures point to their success in expanding opportunity. More than four million students, one-third of all enrollments in American higher education, are enrolled in the two-year colleges. More than half the freshmen begin their post-secondary education careers there. The colleges recruit and serve older students, part-time students, and students from families where, in an earlier era, the idea of attending college would not have been entertained. More than half the minority-group students in all of higher education are in two-year colleges.

The curriculum in these institutions centers on three areas: transfer or college parallel lower division studies, including both remedial or developmental work in the same types of courses that are offered in senior institutions; occupational programs that prepare students for immediate employment; and community service offerings dedicated to short courses and programs of current interest for people who are not concerned with pursuing academic degrees.

These three curricular areas can be traced through the history of the two-year colleges. When they were formed in the early years of the century, these institutions inherited remedial education functions from the secondary schools. There the students would learn the basic skills and values that the lower schools had failed to teach them. In the early years the colleges also began offering lower division, pre-baccalaureate studies to students who would go on to the universities for their upper-division work. In the 1920s and 1930s occupational education was introduced. The community-service aspect of the institution arrived in the 1940s and 1950s. At present the comprehensive institution that offers programs in all three areas is dominant, even though these functions are not treated equally.

Of all postsecondary educational structures in America, the public community colleges have taken the brunt of the poorly prepared students in the Twentieth Century. Few maintain admissions requirements; hardly any of them demand a minimum high school grade point average; less than one in five imposes an entrance test; one-third of them do not even require the high school diploma. Throughout their history most of these colleges have taken pride in their open door stance.

Thus, these comprehensive community colleges offer educational opportunities to a broad cross-section of the population through their open admissions policies, low cost, and by allowing students to matriculate while living at home and/or being employed. Through this general appeal they serve to enhance

access for a wide variety of types of students. They tend to enroll older students, part-time students, and students who are employed, while at the same time serving as the first point of entry for recent secondary-school graduates. Studies of college goals have shown that professional educators and the public alike feel that the main contribution of the colleges is to provide equal opportunity for all to engage in postsecondary studies without regard to ethnicity, sex, age, family income, or physical or developmental handicaps.

The success of the community college in expanding opportunity for people who might otherwise be excluded from postsecondary studies has been notable. However, community college success in educating all students is variable. Attrition levels in most community college programs are high. Well over half the students who declare their intent to transfer to senior institutions either do not complete their community college studies or complete them and fail to transfer. In fact, the reverse phenomenon is more common, with many students entering the two-year college from undergraduate university programs, concurrently attending classes at both institutions, or enrolling in courses even though they already have the baccalaureate or advanced degrees.

Similarly, many students in the non-selective occupational programs drop out prior to concluding their training. In general, attrition in the two-year colleges is the highest of all of postsecondary education. Many of the multiple variables associated with attrition are beyond the college's preview. Yet, numerous special programs have been established to combat the problem and enhance the probability of students completing occupational programs or programs that will enable them to transfer to a baccalaureate degree-granting institution. Learning laboratories, tutorial assistance, bilingual programs, programs to teach reading, writing, and computational skills are found in most

large institutions and in a sizeable number of smaller colleges.

Although in the 1950s and 1960s community colleges received a large share of the well-prepared students who were clamoring for higher education, when the college-age group declined and the universities became more competitive for students, the proportion of academically well-prepared students going to community colleges shrunk. Thus these two-year colleges have been dealt a multiple blow: relaxed admissions requirements and the availability of financial aids at the more prestigious universities; a severe decline in the scholastic abilities of high school graduates; and a greater percentage of applicants who have taken fewer academic courses.

These factors have resulted in a new group of students entering the community college: those who are illiterate in many areas of functioning. And literacy is certainly related to success in nearly all community college programs. Most transfer courses demand proficiency in reading, writing, and/or mathematics. The licensure examinations admitting students to practice after completing a technological program typically demand literacy proficiency. Many community college programs are closed to students who cannot pass an entrance examination that is based on literacy. Accordingly, although the colleges admit all students, some level of literacy is a requisite for entry to -- and success in -- most institutional operations. Literacy demands, for example, are placed on students through such administrative tasks as applications, the transmission of information regarding deadlines, requests for assistance, and other non-instructional but nonetheless important tasks that relate to student success in the institution.

The community colleges attempt to accommodate all these different types of students without turning anyone away. They have always tended to let everyone in, and, to some extent, guide them to programs that fit their

aspirations and in which they had some chance to succeed. The students who qualified for the transfer programs were never a serious problem; they were given courses similar to those they would find in the lower division of the four-year colleges and universities. The technical and occupational aspirants were not a problem either: programs were organized to teach them the trades. Internal selectivity was the norm; failing certain prerequisites, applicants were barred from the health professions and technology programs. And the students who wanted a course or two for their own personal interest have found them both in the departments of continuing education and in the transfer programs.

The residue, the poorly prepared group of high school pass throughs, has been the concern. What to do with marginally literate people who want to be in college but do not know why? How to deal with someone who aspires to be an attorney but who is reading at a fifth-grade level? Shunting these students to the trades programs was a favored ploy, giving rise to Burton Clark's (1960) cooling-out thesis. Offering a smattering of remedial courses where they would be prepared more or less successfully to enter the transfer courses--or entertained until they drifted away--was another. But the decline in achievement exhibited by both secondary school graduates and dropouts in the 1970s hit the colleges with full force and, by most accounts, was increasing in intensity as the 1980s began. The issue of the marginal student became central to instructional planning.

Indeed, the guiding and teaching of students unprepared for traditional college-level studies is the single thorniest problem for the community colleges. Some institutions seem to have given up, as evidenced by their tendencies to award students certificates and degrees for any combination of courses, units, or credits, in effect sending them away with the illusion of having had a successful college career. Others have mounted massive instructional

and counseling services especially for the lower ability students, stratagems designed to puncture the balloon of prior school failure. But in most programs in most institutions, expectations for student achievement have declined. The weight of the low ability students hangs like an anchor on the community colleges.

Compensatory education is not new to the community colleges. Formerly comprised almost exclusively of disparate courses designed to prepare students to enter the college transfer program, students were placed in the courses on the basis of entrance tests or prior school achievement. The courses were usually not accepted for credit toward an academic degree. Morrison and Ferrante (1973) estimated that in 1970 most of the public two-year colleges had developmental, preparatory, or remedial programs. Extrapolating from the sample of schools used in the American Council on Education's Cooperative Institutional Research Program (CIRP), they concluded that all the colleges had some sort of special services for the academically disadvantaged, either special programs (39%), special courses (99%), or both.

Remedial, compensatory, and developmental are the most widespread euphemisms for courses designed to teach the basics of reading, writing, and arithmetic. Enrollments are high but it is impossible to determine how high. Few reliable surveys have been done. And it is difficult to compare courses across colleges because course titles, content, and numbering varies; what is Remedial Writing in one college is English Composition in another.

Some estimates of the magnitude of compensatory education can be made by counting the number of class sections offered in remedial English. Using the 1977 catalogs and class schedules from a national sample of 175 public and private colleges, the Center for the Study of Community Colleges (Cohen & Brawer, 1981) tallied the sections in reading and remedial English (Table 1).

Table 1
English Class Sections Offered in
129 Colleges, 1977-78

Level	Number	Percentage
Remedial/Developmental	5,164	39.6%
Composition	2,419	17.3%
Reading	2,745	19.6%
College Level	8,835	63.1%
Composition	7,963	56.9%
Reading	872	6.2%
Total	13,999	100 %

(Cohen and Braver, 1981)

Recent figures from Miami-Dade College in Florida suggest that 43 percent of the students fall below the cut-off point in reading and 40 percent below the cut-off for written English expression (McCabe, 1981). These figures, as well as both the research and popular literature, point to the need for answers to several pertinent questions:

- How do literacy and attrition relate to each other?
- What is the efficacy of various types of developmental programs that purport to teach literacy?
- Should the colleges teach functional literacy in their transfer or collegiate programs?
- What are the relationships among level of literacy and student attrition or success in various community college programs?
- What role do counselors play in helping students who seem functionally illiterate?

The remainder of this paper will address these questions by citing research studies and describing programs that have been implemented in various institutions. This discussion will be divided into three parts: remedial programs, including those rooted in college transfer courses; attrition; and counseling and

evaluation. Following these reports program consequences will be presented and recommendations made for furthering literacy in community colleges.

Remediation, Transfer Education, and Literacy

One of the biggest controversies in two-year colleges is that they typically admit all students but may restrict admission to certain programs to those who are reading or writing above a particular level. Since all tests of literacy discriminate against those who have learned to communicate through the use of other, different symbols, restricted admissions give rise to cries of racism, undue selectivity, and elitism.

In order to address these problems, special steps have been taken by some colleges to ensure basically illiterate students a place in collegiate programs, and the files of the Educational Resources Information Center (ERIC) at UCLA are replete with reports of these programs. At St. Louis Community College (at Forest Park), for example, English faculty have helped open admission students by asking them to write journals about anything they want as a means of freeing them from their writing anxiety, an idea that stems from Dan Fader's work (Farrell, 1977).

Miami-Dade Community College (Florida) has established goals for general education that introduce revised program requirements in three areas; basic skills, the general education program, and standards of academic progress. The college, which now requires demonstrated proficiency and basic skills before a degree is awarded, leans heavily on academic advisement to students, developmental education resources, credit by examination, and evaluation of its general education program. (Luthenbill and McCabe, 1978).

Passaic County Community College (New Jersey) provides an Academic Foundations Program that helps students acquire knowledge and skills

necessary for college-level studies. All students entering PCCC are tested in reading, writing, speech, and math. If proficiency is lacking, students are placed in a sequence of pre-college courses (Mellander, 1980).

At Tarrant County Junior College (Texas) a basic studies program was designed for students who ranked in the lower quarter of their class and who had experienced little previous academic success. Using an interdisciplinary approach that embraced six areas--communication, humanities, social science, natural science, career planning, and reading--instructional teams of six were responsible for three groups of 100 students. Courses emphasized the students' knowledge about themselves, their environment, and their place in the future society. The program was apparently successful since the basic study students persisted in college at a higher rate than did students with similar characteristics who attempted the traditional remedial approach (Johnson and Others, 1970).

Penn Valley Community College's Developmental Studies Program integrates the concept of developmental education into the mainstream of the colleges. The Learning Skills Laboratory (LSL) is an extension of the math and English classroom. Students may complete LSL instructional activities, as prescribed by faculty, before progressing in the course or concurrently with the course (Ford, 1976).

One criterion of functional literacy is the ability to understand occupational tasks when communicated in written form. An interesting project that connected students with their careers was developed by Essex County's (New Jersey) Adult Education Career Development Center in conjunction with the Newark Construction Trades Training Corporation. This project supplied career-related adult basic education to minority construction trainers and to trainees in other career areas, developed a training program for adult basic education

teachers to serve the inner city adult population, and also developed an instructional strategy that would enable trained paraprofessionals to teach basic skills. Staffing of the project was arranged through small working teams composed of ABE aides recruited from among community college students, ABE associate professionals with 150 hours of supervised experience, tutors or aides, and ABE professionals and specialists with varying combinations of experience in graduate training. During the course of the project approximately 450 students were enrolled and 265 completed from one to four ABE courses. The remainder of the students either received instruction to develop a specific skill or left the program. Students were pre- and post-tested in mathematics and reading, and results indicated that students progressed at a rate eight times faster than students in the regular public school (Howard, 1976).

The results of various City Colleges of Chicago studies that employ recent approaches to corrective learning for low-ability students indicate that in classes using the mastery learning concept, student achievement and retention are not only superior to those attained in remedial programs, but are generally higher than achievement and retention of students in the regular programs and courses taught in nonmastery fashion; well-planned supportive materials and services can compensate for poor college preparation; and cooperative staff and faculty efforts in improving the learning process can result in more successful college learning experiences for more students. Thus, remediation does not have to come in the form of segregated remedial courses (Chausow, 1979).

Attrition

The problems of literacy and compensatory education are interwoven with issues of retention and articulation. Many two-year colleges have mounted special activities to assist their students in staying in school and

successfully completing the programs for which they enrolled. The old days of allowing students to enter the institution even while taking a casual approach to their success or failure are gone. Whether this change is due to increased competition for students and reduced enrollments in some institutions that have caused colleges to be more concerned with keeping the students they have, or whether it is due to the availability of special funds that make it possible to pay for additional assistance to students of lesser ability, is not important. The point remains that efforts are being made to keep the students in the institutions and get them through the programs.

Although the procedures taken to assist students to stay in the colleges still do not reconcile the high attrition rates, they are many and varied. One project that sought out exemplary programs designed to assist lower achievers included Bronx Community College (New York), Oscar-Rose Community College (Oklahoma), Southeastern Community College (North Carolina), and Staten Island Community College (New York) (Colston, 1976). At four community colleges in Texas, administrative intervention, special counseling, and individualized instruction were found to increase student retention (Appel, 1977).

The second assessment study of developmental education programs in Ohio evaluated student improvement in math, reading, and/or English. Math and reading skills improved significantly for each program with some English students increasing reading skills by two grade levels. Follow-up reports indicated that those students who participated in developmental programs tended to do well once enrolled in regular courses, that their retention rates compared favorably with regular students, and that they adjusted more easily to regular courses than nondevelopmental students (Romosher, 1978).

Triton College (Illinois) articulated three program objectives for establishing a developmental education program to increase retention and

graduation rates among academically disadvantaged students. These objectives included instituting horizontal (teaching basic skills) and vertical (assisting in the transfer of basic skills to students' total educational programs) support systems; restructuring policy faculty; and student orientation and counseling procedures; and creating a center to provide academic counseling and social support services specifically for disadvantaged students. Implementing the first objective involved developing an individualized Educational Plan for each student based on test results, previous academic and learning history, and current goals and interests. The second objective involved conducting faculty in-service workshops to promote the program, while implementation of the third objective required designing the Learning Assistance Center to facilitate students' maximum use of its support service, to enhance communication among program staff, and to encourage articulation with faculty and other academic units within the college (Helm, 1978).

As noted earlier, Miami-Dade's first year data on basic skills testing indicate that 43 percent of the students fall below the reading cut-off, 43 percent below the cut-off in written English expression, and 64 percent below the computation cut-off (McCabe, 1981). These very recent figures are discouraging in that Miami-Dade has been working with considerable commitment for many years on problems of literacy and attrition. In fact, as long ago as 1965, in order to reduce the 35 percent attrition rate, a basic studies program had been developed for students with low admission scores and/or academic difficulties. The program's curriculum included remedial reading, writing, and mathematics, as well as a basic educational planning course designed to correct poor choices of college programs by helping students set more realistic goals through self evaluation.

Handy (1965) examined the effectiveness of this program by comparing three groups: those who took the basic studies remedial courses before

enrolling in college: those who were admitted to college courses directly, and those who were to take the basic studies program but instead, for various reasons, went directly into regular college work. At the end of the first semester of college-level courses, grade point averages of the three groups were computed and compared with the combined control groups. Although the experimental groups received a significantly higher GPA in basic courses, this program appeared no more effective than one involving a reduced course load for the disadvantaged students.

A more recent study of attrition among students with basic skills deficiencies was conducted at Sacramento (California) City College. In the fall of 1978, this two-year college initiated a higher education learning package (HELP) to promote the success and retention of students with basic skill deficiencies while mainstreaming them into regular courses. Students worked with instructors and tutors in small groups and on one-to-one bases. Using an integrative team-teaching approach, instruction was built on student experience, and progress was measured in terms of established competency criteria. Students committed themselves to a two-package, one-year program, taking one package each semester. Package 1 consists of English (written communication skills), psychology, basic arithmetic and developmental reading while Package 2 consists of speech (oral communication skills), social science, and human development. Despite the fact that students would complete 24 units toward the AA degree during this first year, external factors over which the college had no control were responsible for many students leaving the program. Another factor influencing attrition was the fact that many students entered the program with skills below the 6th grade level, upon which the program was designed (Bohr and Bray, 1979).

The Learning Skills Center (LSC) at Los Angeles City College is an individualized learning laboratory offering assistance in communication and

connotative skills and providing tutoring in all college-level courses. LSC's skills programs are diagnostic and descriptive, and services are available to students on both voluntary and referral bases. In evaluating this program, dropout rates were compared between LACC students who were enrolled in basic English or mathematics and students who were involved in a baseline dropout study. The baseline persistence study showed a dropout rate of 42.8 percent for students in basic English, whereas the dropout rate for the LSC program participants enrolled in basic English were 16 percent for the 1974-75 fall semester and 6.6 percent for the spring semester (Benjamin, 1976).

Other reports in the ERIC system similarly indicate that when special treatment is applied to students, they tend to stay in school and to succeed in their chosen programs to a greater extent than do students to whom the special interventions are not made. Perhaps there is nothing surprising in that revelation--special treatment of any sort yields results--but it is gratifying to note that lower achievers can be helped and that they are being helped in a number of two-year colleges.

Counseling and Evaluation

Efforts to cope with problems of illiteracy and attrition among two-year college students have included counselors and guidance personnel. While these programs most often involve personal counseling and efforts to motivate students as well as skills training, the focus is generally on the acquisition of basic skills.

New Start, a public service program sponsored by Spoon River College (Illinois) is such a plan. In cooperation with local public agencies and individuals in the community, New Start was created to provide broad-based, quality education that included both academic and vocational skills and personalized educational placement and counseling. Students qualified for

New Start by meeting one of several criteria: four-member family annual income less than \$7,386, public aide recipient, non-high school graduate, reading level below 7.0, pattern of unemployment, or arrest record. The program included several aspects: compensatory education courses designed for people with extensive reading problems, pre-general education development courses in reading and mathematics, vocational skills education, an outreach tutor who traveled to the homes of students who could not attend regular classes, a recruitment accountability and placement coordinator who provided special assistance to public aide recipients, personal and vocational counseling, and staff development. Between 1977 and 1978 the program had 741 participants; of these, 549 were new enrollees; 543 were enrolled in the pre-GED and GED review courses; 115 acquired their GED certificates; and 337 continued their education at the college (Conti and Others, 1978).

The government studies program at Clackamas Community College (Oregon) was also developed to deal with functional illiteracy. Its specific aim was to increase students' ability to express desires and opinions coherently and to convey feelings about themselves positively. Every student at Clackamas was pretested upon entrance to the college to determine eligibility for admittance into regular courses. Students not achieving a minimum score on the ACT or SAT test (approximately 20 to 25 percent of all students) are directed and counseled into the guided studies program, which consists of three components: a testing phase, counseling to advise students into programs to meet their individual needs, and humanistic experiences, which introduces the student to the world of the arts. As a result of this program, the attrition rate for the lower quartile of the student population was reduced by 75 percent, and the students' sense of individual responsibility was found to increase (Epstein, 1978).

The Alternative Services to Raise Achievement (ASTRA) program at the Greater Hartford (Connecticut) Community College is designed to supply developmental services to students with academic potential who need these activities to complete their education. Instructors meet students in both large and small groups and also provide individual tutoring when needed. The program is divided into five phases: the identification of students--testing and program selection; an intense instructional program in developmental communication skills; interdisciplinary coordination of communication skills with a content area or course; a three-week study period for students who require additional time to succeed; and, finally, a tracking phase in which counselors monitor students' progress in their regular academic work through weekly seminars. Composition laboratory services and a counseling support program are also integral parts of ASTRA (Eddy, 1979).

The Human Services Development and Training program was designed in conjunction with Navajo Community College (Arizona) to provide job and basic skills training to the Navajo tribe at three reservation field sites. The curriculum was organized into four phases during a one-year period, stressing written and verbal communication, basic computation, human relations, and Navajo cultural education (Smith, 1979).

How effective are these programs developed to increase literacy and decrease attrition? What types of evaluative procedures are used to assess their effectiveness? Some evaluations are based on pre- and post-test results. Others use individual survey data. Many are worthy of note. For example, the success of the developmental skills program offered at Los Angeles Southwest College, a 96 percent Black institution, is indicated by an average student grade equivalent gain of 2.3 years in one semester; a five-year average accelerated academic growth rate that is 5.9 times the previous academic growth rate of Black intercity students, and an increased retention

rate of 80 percent. The success of this program is encouraging in view of the drop in basic skills that has been decried in Los Angeles and elsewhere in the nation. Specific methodologies related to program success include testing and placement techniques, group orientation, close instructor contact, use of skills specialists, course uniformity, non-traditional reading assignments, firm deadlines, pre- and post-testing, and required departmental meetings (Wallace, 1978). Interestingly, many of these activities incorporate traditional approaches to teaching and learning.

About two-thirds of the students at Essex County College (New Jersey), including those whose reading ability at the beginning of the class was in the third- to seventh-grade level, successfully completed a remedial English course. Ten percent scored well enough for placement in regular English classes (Drakulich, 1979). The student placement procedures seem valid: in a study of remedial English classes in five community colleges, the students' writing ability at the end of the courses was found to be on average equivalent to the writing ability of students who were beginning the regular college English classes (Cohen, 1973). At San Antonio College (Texas), where the percentage of entering freshmen with composite American College Test scores in the lowest category of 1 to 15 increased from 28 in 1967 to 61 in 1975, the remedial course in basic English was replaced by a multimedia laboratory involving self-pacing, computer-assisted instruction, and special tutoring (Rudisillaud Jabs, 1976).

The most prominent development in compensatory education in the 1970s was the integrated program combining instruction in the Three Rs with special attention to individual students, self-pacing, peer tutoring, counseling, study skills, and reproducible, self-paced learning media brought together in various combinations for especially identified low-ability students. Numerous reports of these types of programs may be found. As an example, Loop College

in the Chicago City system developed a block program for low-ability students that included peer tutoring, intensive study skills training, special advisement, career counseling, and the use of audio-visual materials--all under the management of a special course in psychology (Jolon, 1979).

The Nanaimo Downtown Study Center's (British Columbia) adult basic educational advisement program offered "start any time entry/open exit" courses in English and mathematics at all levels from basic literacy and numeracy through grade 12 equivalency. During 1975 and 1976, 189 adults studied at this center, 165 of whom were between 17 and 44 years of age, primarily for the purpose of self improvement and enhancement of employment potential. Grade 12 diplomas were received by 39; 60 people obtained or returned to a job. The Center responded to approximately 1,200 inquiries during the year, and in-depth advisement was performed in approximately 360 cases (Harrison, 1976).

All entering students scoring below the eleventh percentile on the Bakersfield College (California) entrance examination, SCAT, and English Classification Test were given additional reading, arithmetic, and group nonverbal intelligence tests. From this group, 27 volunteers were chosen to participate in a six-week, four-hour daily program of remedial English, reading, and mathematics. Pre- and post-tests showed mean rating gains from grade 8.0 to grade 8.4 with some students improving more than two grade levels. Similar gains were noted in the SCAT and English Classification Test, attendance was nearly perfect in this program, and students submitted work regularly, which was corrected but not graded. Gains in test scores and positive student attitudes attested to the program's success (Siver, 1967).

Gateway Technical Institution (Wisconsin) followed students who had been enrolled in their Adult Basic Education program during 1973, 1974, and 1975. In order to ascertain the program's effectiveness in both cognitive and

affective areas of the students' lives, data were collected from a random sample of 270 former students by means of personal interviews. Results of these interviews indicated that reading and math were areas in which ABE was able to help students achieve their goal; ABE experiences helped students to speak English better, to write, read and use mathematics better and, in some cases, to obtain the GED or to continue with their education; some respondents felt that the ABE program had helped improve their relationships with children and families; and more than 20 percent reported an increase in self confidence and communication ability (Becker, 1976).

In yet another study reported through ERIC, the academic records of over 2,000 students who were required to take a remediation course in reading and writing skills during their first semester at Queensboro Community College (New York) were compared with the academic records of an equal number of students not required to take such a course (requirement was based on Cooperative English Examination percentile group). Of a total enrollment of 3,230, 24 percent or 774 students were graduated by August, 1975. Of these, 334 (43.2%) were basic skills students, of whom approximately 50 percent were graduated at the end of 2.5 years, and 86.2 percent were graduated at the end of three years, as compared to 87.9 percent of the non-basic skills graduates. In the basic skills group, 44.7 percent received an Associate of Arts degree; 46.8 percent, the Associate of Applied Sciences; and 8.4 percent, the Associate of Science. Of all graduates, 25.1 percent were basic skills students with high school averages below 75, 20.7 percent were non-basic skills students with high school averages below 75; 16.4 percent were basic skills students with high school averages above 75; and 37.7 percent were non-basic skills students with high school averages above 75 (Bergman, 1970).

A comprehensive Project in Functional Literacy Education presented a new model for ABE programs in five sites in North Carolina. Aim of this project

was to incorporate a core curriculum in functional education with the financial, human, and educational resources needed to mount a successful attack on functional illiteracy. Means of 186 scores (adjusted by removing all cases scored at the "ceiling" on the pretest) were 53.8 for the pretest, 61.3 for the posttest--a score gain of 7.5.

Consequences and Recommendations

Despite these efforts to address problems of illiteracy, several questions remain: How does compensatory education affect the college staff? How can compensatory education operate in an open admissions institution without jeopardizing the college's legitimacy in higher education? How can segregated compensatory education programs respond to charges of racism and class-based tracking? How many times should the public pay the schools to try to teach the same competencies to the same people?

The first question relates primarily to the college faculty who face the students daily. How do they feel about the massive compensatory education efforts and the poorly prepared students in their classes? The students' abilities exert the single most powerful influence on the level, quality, type, and standard of curriculum and instruction offered in every program in every school. Other influences--instructors' tendencies, externally administered examinations and licensure requirements, the entry levels imposed by succeeding courses in the same and other institutions -- pale in comparison. Nothing that is too distant from the students' comprehension can be taught successfully. All questions of academic standards, college level and remedial courses, textbook readability and coverage, course pacing and sequence, come to that.

The students are part of the instructors' working conditions. Except for the faculty recruited especially to staff the compensatory programs, most would feel their environment improved if their students were more able. In

response to the question, "What would it take to make yours a better course?", 53 percent of the respondents to a 1977 national survey of two-year college science instructors noted, "Students better prepared to handle course requirements" (Brawer and Friedlander, 1979, p. 32). That choice far outranked all others in a list of 16.

If students cannot be more able, at least they might be more alike so that instruction could be more precisely focused. Teaching groups of students whose reading or computational abilities range from the third to the thirteenth grade is demoralizing; everything is more difficult, from writing examinations to showing group progress. Hence the unremitting pressure for ability grouping, remedial courses, learning laboratories that serve to remove the poorer students from the classrooms.

Thus compensatory education affects the staff in several ways. The traditional faculty remember their college in the 1950s and early 1960s when they had well-prepared students. They may feel nostalgic, perhaps even betrayed because the conditions under which they entered the colleges have changed so. At the same time they may be pleased that the segregated compensatory education programs remove the poorest students from their own classes; over one-fourth of the instructors teaching the traditional academic courses, (humanities, sciences, social sciences and technologies) would prefer "stricter prerequisites for admission to class (Brawer & Friedlander, 1979). Nonetheless, the teachers in the compensatory education programs run the risk of becoming pariahs, similar in that regard to the occupational education instructors in the pre-1960s era.

The question of legitimacy is one of image in the eyes of the public, the potential students, the funding agents, and the other sectors of education. Like any public agency, an educational institution must maintain its legitimacy. Through numerous strategies, the community colleges have strived to maintain

their claim to a position in the postsecondary sector. One example was their behavior in the 1950s and 1960s when they sought people with doctoral degrees to serve as staff members and rewarded current staff members when they obtained the higher degree, even though the possession of a doctorate bears little or no relationship to a faculty member's professional activities (Cohen and Brawer, 1977). The doctorate was a way of saying, "We are as good as the senior institutions." One of the reasons for the move toward segregated compensatory programs has been an attempt to regain the legitimacy lost when the colleges accepted adult basic studies and job training programs that could in no measure be considered "college level." The unintended consequence of this latest attempt to gain legitimacy as a collegiate institution has been that students are held away from the liberal arts just at a time when they should be exposed to them. And extreme care must be taken lest it have the additional consequence of leading to ethnic separation within the institutions.

Actually a school's legitimacy rests on its academic standards and the definition of its guiding principles. Academic standards certify that a student holding a certificate or degree has met the requirement for employment or for further study at another college; they are the basis for the reputation of institutions and the people who work within them. Even though the community colleges typically maintain open admissions policies, they must still attend to these concerns. Their students must be certified; their instructional programs, testing and counseling services, course content, course requirements must all relate to a shared vision of desired competencies and outcomes. Their certificates or degrees must evidence some set of proficiencies achieved at some minimum level.

What are the standards in compensatory education? Here the special programs exhibit several problems in common with the traditional. One of the main problems is the difficulty in setting fixed exit criteria for courses and

programs that have no set entry requirements. If anyone may enroll regardless of ability, a wide range of students will be attracted. Thus, the exit criteria must either be fluid with a different standard for each student, the time and type of instruction must be greatly varied, or the expectations must be maintained at an exceedingly modest level. All three options are at play to some degree in practically all programs.

Standardized expectations of accomplishment, or exit criteria, suggest social norms as contrasted with standards for individuals. Social norms suggest that people who would function adequately in particular social settings (the workplace, further schooling) must act to a certain standard. On the other hand, relating accomplishment to the desires or entering abilities of individuals suggests that any accomplishment is satisfactory and that the institution has succeeded if any gain in individual ability is shown. This conflict between social and individual standards is, then, an issue of the absolute versus the relative, and it strikes the heart of compensatory education.

Different groups take different positions on the issue. The community college faculty tend to argue in favor of absolute standards. The Academic Senate for California Community Colleges has studied the problem extensively, surveying their members and sponsoring state conferences on it (Report of the ASCCC, 1977). They deplored some of the pressures to lower standards: students entering the colleges with inadequate basic skills but with expectations of passing the courses as they have done throughout their prior school careers; ill-prepared students insisting on enrolling in transfer courses rather than in remedial courses; the virtual elimination of D and F grades and concomitant wider use of passing grades; a reduction in the number of required subjects; the cult of growth afflicting community colleges as evidenced by the aggressive student recruiting drives. The ASCCC Academic Standards Committee

recommended that standards should be maintained through the use of diagnostic and placement testing, directive counseling, and academic prerequisites for courses, and proficiency testing prior to awarding academic degrees.

The advocates of the concept of lifelong learning often provide an opposing view. To them, the seekers of knowledge should find the institution a resource to be used for an infinite variety of purposes. Cross (1979) puts that position well, arguing that substantial changes in school forms are needed so that anyone may learn anything at any time.

Functional literacy is related to the milieu in which people find themselves. It is relative; there are no absolute minimum standards of competency. A functionally literate person in some school settings may be functionally illiterate in certain jobs. And a person who is quite able to communicate within the confines of certain jobs may be functionally illiterate for purposes of a college transfer program no matter how that program is defined.

Institutional legitimacy and faculty predilections rest on standards, defined outcomes, certifiable results. But the definitions guiding staff efforts and the precepts of continuing education or lifelong learning are relative; each person brings idiosyncratic backgrounds and aspirations to the institution, each finds a separate set of experiences. How can the two be reconciled in an open admissions institution? The question is not limited to compensatory education but the influx of low academic ability students has brought it to the fore. In addition to their being genuine efforts to provide a more useful learning experience for poorly prepared students, the compensatory education programs have segregated them into separate enclaves, thus protecting, at least temporarily, the legitimacy of the other portions of the college. Issues of minority student segregation and tracking are not as easily submerged.

Compensatory education is designed to do what its name suggests, to compensate for deficiencies. Morrison and Ferrante (1973) suggest that these

deficiencies are not merely those occasioned by failures of the lower schools but that they relate to cultural differences. For example, in families from the lower classes, where obtaining food, clothing, and shelter is a matter of daily concern, a tendency toward immediate gratification is built in. On the other hand, where the necessities of life are not cause for daily concern, aspects of family life will allow for deferred gratification and the norms for child rearing will include using formal education as a means of reaching for rewards to be obtained later. The idea of using the school as an avenue for potential advancement in the culture is alien to the people from the lower classes. To them, if school is to be used as an avenue of advancement in any realm, it is toward higher status employment. Yet their tendencies toward immediate gratification make it difficult for members of these groups to accept the regimen of years of study needed before one obtains certification. Morrison and Ferrante conclude, "One perspective of the term 'disadvantaged' then, is socialization into attitudes, values, and norms which serve to inhibit advancement into the occupational positions which would provide the material rewards desired. . . We may therefore regard the term 'disadvantaged' as synonymous with 'culturally different'" (pp. 4-5).

Because community colleges enroll so many "disadvantaged" and "culturally difficult" students, the establishment and operation of compensatory programs becomes freighted with overtones of fascism. Reading tests are hazed as culturally biased, and writing tests are said to discriminate unfairly against those whose native language is other than English. Olivas (1979) summarizes the issues well, concluding that community colleges simultaneously provide opportunities for minorities to enroll while perpetuating inequities.

As long as these colleges admit everyone but maintain certain admissions requirements for different programs, the controversy will continue. Selective

admissions to any program is as discriminatory as it is justifiable. Regardless of the yardstick applied, the people who are shut out of the programs in which they want to enroll have been discriminated against. And yet with accrediting agencies, state licensing boards, and senior institutions looking in, program directors feel justified in admitting only a select few, particularly if the field of endeavor for which the program prepares people can take only so many graduates or if college facilities allow for only so many matriculants. Should the colleges restrict admissions to certain programs? The answer to that question relates to the question of whether the colleges should teach a level of literacy sufficient to enable students to function within the programs. If some applicants cannot gain admission to a program because their level of literacy is lower than a cutting score, the issue is resolved for them. But if the applicants are admitted to the program, then the program operators are responsible to teach the skills required for students to succeed. The pattern of allowing all to enter and using the program itself to screen out the unworthy should be discounted: first, because one cannot at the same time teach and judge; second, because it is too expensive in terms of concern for humans to allow sizeable numbers to enroll with the expectation that many of them will not complete the course of study.

The pressures for selective admission to various programs have grown in recent years. In the 1950s most colleges screened students into remedial programs if the students' prior high school grades or entrance test scores suggested they might not be able to succeed in the transfer programs. In the 1960s the pressure to allow anyone to enter a transfer program grew, the reason being the remedial programs were seen as catch-alls for the less worthy, as holding tanks for students who must be "cooled out" of higher education. In the 1970s the pendulum swung back with many institutions building compensatory

programs (sometimes complementarily called developmental programs), screening students into them, moving away from the attitude of letting students try everything and fail if they must.

The community colleges are not alone; the lower schools in many states have begun competency testing for graduation, withholding diplomas from those who are in their terms functionally illiterate. And the community colleges are being pushed toward entrance testing by state agencies that are no longer willing to fund students who do not make satisfactory progress toward the degree. Accordingly, for both sides, the effort to select students into programs for which they are functionally literate is effecting the two-year institutions. The institutions are reacting by resetting their screens.

It is quite possible to teach functional literacy in the regular transfer and developmental programs. Most students can succeed if they are provided with tutorial assistance, access to a learning lab, special counseling, peer group assistance, and/or a variety of other aides. But it takes more than willingness to provide these services; it takes money. The question is how much effort the colleges are willing to put into the extra treatment required by students who enter programs with which they are not capable of coping. Given a choice between an admissions screen to keep students out of the programs and the allocation of sizeable funds to assure student success if they are admitted, many institutional managers who are faced with static budgets opt to keep the less well prepared students out of the transfer courses by placing them in remedial courses or segregated compensatory education programs.

But denying students admission to programs of their choice is difficult to justify. The open-door philosophy of the community college indicates these students should not be denied. The fact that they can be taught to succeed suggests they should not be denied. And the fact that students who are denied access to the transfer programs are typically denied exposure to

the humanistic and scientific thought on which they are based mandates that they must not be so denied. The community colleges have succeeded in opening access to all; if that access is limited to a compensatory program that offers primarily the same type of basic education that failed the student in the lower schools, that student has been cruelly denied access to the higher learning. The colleges cannot afford to operate separate programs for the less qualified. They must teach literacy in the transfer programs and provide whatever assistance it takes to get the students through them.

Here is where the community colleges can reconcile their conflicting philosophical bases. They say they exist to meet everyone's needs; if so, they cannot rightfully deny anyone access to a program of his/her choice. They say they are a steppingstone to the higher learning; hence they cannot condemn sizeable percents of their student body to a form of education that is less than college level. They say they respond to community needs, but they must acknowledge that curriculum is dictated more by internal institutional dynamics than it is by external pressures. They say they have something for each student, hence they must mount a sizeable effort to provide a variety of media necessary for each student to succeed.

The question of the public's willingness to pay repeatedly for the schools to teach literacy is one of public policy; it cannot be answered by school practitioners alone. It rests on the state of the economy, the power groups in state legislatures, the types of federal funding available, the agency heads in state capitols and federal bureaus--in short, it is beyond the practitioners' control. And no one can predict with assurance how those forces will affect compensatory education in the community colleges.

Teaching the basic skills to people who failed to learn them in the lower schools is difficult and expensive. Questions of impact on college staff

and image pale before the issue of cost. No form of teaching is easier, hence cheaper, than the course for self-directed learners; the teacher-student ratio is limited only by the size of the lecture hall. None, not even education in the higher technologies, is more expensive than the varied media and close monitoring demanded by the slow learners. Many college leaders fear publicizing the extent of their compensatory education programs lest their funding be threatened by legislators and members of the public who raise embarrassing questions about paying several times over for the education that was supposed to be provided in the lower schools.

In sum, those who would impose standards for programs at any level face difficulties stemming from lack of consensus on institutional purpose, antagonism to the idea of group norms and, in the case of the secondary schools and community colleges, the inability to impose entrance requirements. Selective screening into transfer programs could not be maintained in an earlier era because students demanded and got the right to fail. The unconscionable attrition figures led to a variety of untoward consequences. Selective admission into transfer programs is being tried again because it is easier to screen students out en bloc than it is to establish the criteria for functional literacy course by course. And yet unless those criteria are defined, selective admissions will again be unsuccessful. Granted that it takes a special effort to bring students to the point at which they can succeed in the courses and programs of their choice, the community colleges must find the funds and the ways to do so lest they be justifiably accused of failing to fulfill their mission.

Since the necessary funds to support able students through the courses of their choice are not likely to be forthcoming, some compromises will have to

be made. But these must not take the form of segregated remedial programs; many more balanced measures are available. As an example Miami-Dade Community College is operating a massive general education, student advisement system for its 39,000 students. Every matriculant is tested at entry for reading, writing, and mathematical skills and screened into support courses, the general education core, and/or specialized courses. A computerized academic alert system monitors student progress by checking for course attendance and completions and sends individualized mid-term progress reports to each student. An Advisement and Graduation Information System provides additional data matching every student with their degree aspirations and informing them of their progress. And a Standards of Academic Progress model warns students if they are failing to make satisfactory progress toward completing a program and places them on suspension if they do not reduce load and take advantage of the special interventions available to them.

In short, Miami-Dade has not mounted a compensatory education program in which deficient students are placed until they are ready to enter the regular courses. They have restructured the curriculum by building truly integrated general education courses and requiring them for all students, and they have built a computerized advisement system that keeps the students apprised of their progress toward completing a program. And all was done within the framework of directives and standards such that the students know exactly what they must do. These sets of institutional aids and expectations may be as close as a college--not an individual within that college--can come in showing that it cares about students. That alone should have a notable effect on the development of literacy among them.

BIBLIOGRAPHY

- American Association of Community and Junior Colleges. Directory. Washington, D.C.: AACJC, 1977.
- APPEL, V. H., AND OTHERS. Impact of Administrative Climate, Instruction, and Counseling on Control Expectancy, Anxiety and Completion Rate of Post-Secondary Educationally Disadvantaged and Minority Vocational/Technical Students. Final Report. Austin: Texas University, Department of Educational Administration, 1977. (ED 149 801)
- ASCCC Report for Conference on Academic Standards. (MINCO), 1977.
- BECKER, W. J. AND OTHERS. Adult Basic Education Follow-Up Study, 1973-1975 Final Report. Kenosha, Wisconsin: Gateway Technical Institution, August, 1976. (ED 134 242)
- BENJAMIN, B. C. Evaluating and Auditing a Community College Learning Center Program. Los Angeles City College, May 1976. (ED 121 408)
- BERGMAN, I. A Five Year Follow-Up Study of Entering Fall, 1970. Basic Skills Students at Queensboro Community College. Bayside, New York: Queensboro Community College. (ED 143 385)
- BOHR, D. H., AND BRAY, B. HELP: A Pilot Program for Community College High-Risk Students. 1979. (ED 168 635)
- BRAWER, F. B., FRIEDLANDER, J. Science and Social Science in the Two-Year College. Center for the Study of Community Colleges and ERIC Clearinghouse for Junior Colleges, Topical Paper No. 69, July 1979.
- Center for the Study of Community Colleges. The Humanities in Two-Year Colleges. Trends in Curriculum. Los Angeles: Center for the Study of Community Colleges and ERIC Clearinghouse for Junior Colleges, 1978.
- CHAUSOW, H. M. Remedial Education: A Position Paper. 1979. (ED 170 013)
- CIARDI, J. "Give Us this Day Our Daily Surrealism." Saturday Review, 1971, 54,(24).
- CLARK, B. R. "The 'Cooling-Out' Function in Higher Education." The American Journal of Sociology, 1960, 65 (6), 569-576.
- CLARKE, J. R., AND OTHERS. Developmental Education in Higher Education. Advanced Institutional Development Program. Washington, D.C.: McManus Assoc., 1976. (ED 134 272)
- COHEN, A. M. "Assessing College Students' Ability to Write Composition." Research in the Teaching of English, 2, 3, pp. 356-371, 1973.
- COHEN, A. M., AND BRAWER, F. B. The Two-Year College Instructor Today. New York: Praeger Publisher, 1977.

- COHEN, A. M., AND BRAWER, F. B. The American Community College: An Interpretative Analysis. San Francisco: Jossey-Bass Inc. (in press)
- COLSTON, J. A. Minority Programs in Higher Education: Alternatives to the Revolving Door. Paper presented at the Annual Convention of the American Association of Community and Junior Colleges. Washington, D.C.: March 19, 1976. (ED 125 711)
- CONTI, G. J., AND OTHERS. New Start. General Education (GED), Job Skills and Job Placement: A Summary. 1978. (ED 169 983)
- CROSS, K. P.
- DRAKULICH, J. S. An Evaluation of COM 080. Research Report 79-1. New Jersey: Essex County College, 1979. (ED 180 523)
- EDDY, E. M. Project AJTRA, November 1979. (ED 184 071)
- Educational Testing Service.
- EPSTEIN, D. B. "Community College and Literacy." Claremont Graduate School, 1978. (ED 158 817)
- FARRELL, T. J. "Literacy, the Basics, and All That Jazz." College English, Vol. 38, No. 5, January, 1977. pp. 443-459.
- FORD, M. Penn Valley Community College Learning Skills Laboratory: A Resource Center for Developmental Education. Developmental Education in Higher Education. AIDP Consortium. (JC 770 112)
- HANDY, R. F. An Analysis of Academic Improvement in the Basic Studies Program of Miami-Dade Junior College. January, 1965. (ED 016 472)
- HARRISON, D., AND OTHERS. Downtown Study Centre---NANIMO, First Annual Report, 1975-1976. Nanamo, British Columbia: Malaspina College, November, 1976. (ED 134 267)
- HELM, P. Proposal: Developmental Education Program. River Grove, Illinois: Triton College, 1978. (ED 152 386)
- HOWARD, J. H. Adult Basic Education Development Center in the Newark Model Cities Area, For the Period Ending December 1, 1974, Final Report. Newark, New Jersey: Essex County College, April, 1976. (ED 133 027)
- JOHNSON, C. N., AND OTHERS. Basic Studies: A Description and Progress Report. September, 1970. (ED 044 104)
- LOAD, E. C., AND LIPSET, S. M. Professors, Unions, and American Higher Education. Berkeley, California: Carnegie Commission on Higher Education, 1978.

- MCCABE, R. H. General Education and a Changing Society. General Education Program, Basic Skills requirements, standards of academic progress at Miami-Dade Community College. 1978. (ED 158 812)
- MCCABE, R. H. Personal Communication. 1981.
- MELLORDER, G. A. "Did the 'Massacre' Lead to a Miracle," Community and Junior College Journal, 50, 7 April 1980. pp. 12-14.
- MEREKEN, H. L. (In Lyons, G) "The Higher Illiteracy." Harper's, 253, 1516, September 1976. pp. 33-40.
- MARRISON, J. L., AND FERONTE, R. "The Public Two-Year College and the Culturally Different." 1973. (ED 078 818)
- OLIVOS
- PARKMAN
- ROMOSER, R. C. "Results of Second Assessment Study of Developmental Education Programs in OHIO." 1978. (ED 157 587)
- RUDISILE, V. A. AND JABS, M. C. Multimedia Instruction in Basic English. Texas: San Antonio College. 1976. (ED 128 056)
- SIVER, A. B. Extending a Helping Hand Educationally. A Report of the Progress of the Students in Basic Skills 100. California: Bakersfield College, November, 1967. (ED 017 267)
- SMITH, M. F. A Model for Student Development in the Satellite Campus Setting. 1979. (ED 174 293)
- SOLON, C. "The Pyramid Diagram. A Tool for Academic Success." (Unpublished paper, 1979) (ED 172 862)
- TRIPLETT, S., AND STRONG, E. W. A Comprehensive ABE Program. Community College Review. 7, 1, Summer, 1977.
- WALLACE, R. "Myth Exposed: Academically Deficient Students gain 2.3 grade equivalents in only one semester at a ninety-six percent black inter city community college in South Central Los Angeles or interstaff city academic acceleration: how to structure a developmental skills program so that black, inter city students accelerate their academic growth rate to a rate 5.9 times as great as they have achieved in the past. May, 1978. (ED 157 570)