

A Comprehensive Model for Affective and Cognitive Support for Developmental Learners in Postsecondary Institutions

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Over the last thirty years American higher education has witnessed a dramatic change in the composition of its student body. The change is essentially one of moving from a rather homogeneous group of young adult students from middle-class and professional family backgrounds to the current status of an incredibly diverse student body encompassing over 150 different ethnic, religious and economic groupings as well as increased enrollment by older students. Many of these students are developmental learners in the sense that they are highly motivated to achieve, but are less prepared to compete in the college setting than many of their peers. These students have been shown to succeed in college when appropriate support mechanisms are in place at their institutions.

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Over the last thirty years American higher education has witnessed a dramatic change in the composition of its student body. The change is essentially one of moving from a rather homogeneous group of students from middle-class and professional family backgrounds to the current status of an incredibly diverse student body estimated as encompassing some 150 different ethnic, economic, and religious groupings and reflecting the growing diversity of American society at large. In addition, some students enter higher education as developmental learners (Beckett, 1995), that is, highly motivated and generally the top students in their high schools, but still somewhat at a competitive disadvantage academically relative to their peers. These students have been shown to succeed with appropriate support mechanisms in place by their institutions. Such diversity brings with it a growing need to assist students in ways that help them to feel a part of the university community as well as a need to assist students in meeting the academic challenges they face. Thus, both affective and cognitive support systems should be in place to help student and institution achieve their goals.

A number of approaches for addressing student cognitive or affective needs are documented across the nation, but few places attempt to address both domains in one program. The current document describes one such effort that has been in existence for some twenty years and which has met with considerable success during that period. The program is a comprehensive model for promoting the affective and cognitive development of students in postsecondary education.

Common Models

Several models of assisting students are known and they can be grouped into four broad categories:

The Affective Model. Recognizing that students often face adjustment difficulties in college, the affective model usually seeks to offer mechanisms by which the student may more readily embrace the nature and requirements of college life (Collins, 1982). Extensive advising is often a major component of such efforts, including advice from role-models with backgrounds similar to those of students and who have themselves

successfully negotiated the college experience. Role-models may be upperclass students, alumni, or members of the advising/program staff. Group counseling and advising programs are also important and may take the form of intrusive advising, developmental advising, or standard academic advising, but with the latter being offered in a more structured or more frequent format; for example, monthly appointments with one's advisor instead of an appointment once-a-semester. Other components of the affective model may include cultural enrichment programs as well as social and recreational activities. A major goal of the affective model is to help students feel a kinship with the broader college community, despite what they perceive to be differences between themselves and the more traditional student body. Thus, a welcoming atmosphere is expected to encourage students to take greater ownership of their education and development and utilize their time outside of class more appropriately.

The Academic Assistance Model. By definition, developmental students often require assistance strengthening their academic skills or knowledge base in order to compete successfully in the college environment. Several active approaches are available (Beal and Noel, 1980), but perhaps the most common is the *tutorial program* in which advanced students who have themselves succeeded with course subject matter provide regularly scheduled opportunities for developmental students to receive assistance in mastering course material. A less effective approach is to offer tutoring on an *as needed* basis in which developmental students seek tutorial help upon realizing that they are unsure about required academic skills and concepts. The reason the *as needed* approach is likely to be less effective is that by the time students realize their difficulty with subject matter and obtain some assistance with it, they are often even further behind with respect to course requirements. Although programs that provide individual tutoring can be helpful, they also tend to be costly as a wide variety of courses must be covered, sometimes serving for only a few enrolled students. Peer tutoring programs that utilize capable undergraduates as tutors is one way to provide assistance while controlling costs. An alternative to tutoring is the *supplemental instruction approach* (Martin and Arendale, 1994) in which a knowledgeable resource person holds regularly scheduled, structured meetings with students to clarify subject matter and generally to strengthen students' skills and knowledge. This approach can be particularly effective if the resource person is highly trained, such as a member of a department's instructional staff, though not the course professor. Neither is the Supplemental Instructor to be a teaching assistant who may run a discussion group or

lab as in common in large universities. The role of supplemental instruction is to provide an *additional* resource to developmental students. A resource that recognizes that in addition to clarifying subject matter such as lectures, text readings or problem sets, developmental students may need to learn strategies for studying different kinds of material or strategies for preparing for examinations. Success in college for any student often requires new approaches for meeting the demands and expectations of faculty as well as a heightened commitment for keeping pace with the competitive instincts of other students. The Supplemental Instruction Program can be an effective means for both sets of requirements. Similar to Supplemental Instruction is the *Study Group* approach in which students meet regular among themselves to review subject matter, share insights about course topics and problems, and prepare cooperatively for examinations or other assignments. Study Groups do not necessarily require a knowledgeable resource person to assist the groups efforts. Indeed, the effective Study Group will have a sense of shared responsibility among its members for mastering course material. Resource staff can be available to the study group to serve as motivator or facilitator, but the real value of study groups results from the cooperative learning atmosphere that is developed among its members and their consistent investment of time and effort using course subject matter.

The Academic Skills Model. An alternative to direct academic assistance for developmental students is to encourage their development of effective study skills and habits that are generally useful to being successful in college (Maxwell, 1979; Weinstein, et al, 1988). Such skills usually encompass note-taking strategies, time-management, reading improvement skills, test-preparation techniques, problem-solving strategies, and techniques for storing and retrieving large amounts of information. Good study habits are widely recognized as one of the most important factors in college success regardless of an individual student's level of preparation or standardized test scores. Thus, a focus on the general development of good study habits and strategies for learning can be an effective tool for promoting success in college. Important questions, however, are how and when to offer programs that teach effective study strategies. One answer is to offer such programs as a series of workshops throughout the fall and winter terms allowing students to learn and develop effective strategies at the time when these strategies can be applied immediately to course work. Another approach is to offer programs in study skills in the summer months prior to first-time matriculation as a full-time student at one's intended college. Many schools and colleges offer *pre-freshmen* programs to bridge the transition from high school to

college (Collins, 1981; Gurthrie, 1991) and they do so in part to provide a structured opportunity for developmental students to improve study skills and habits. In addition to a focus on general academic skill development, summer programs also allow for a concentrated experience with college-level demands in such areas as math or English. Although students may complain about having to give up their summer freedom for academic work, summer programs are invaluable opportunities for helping students to develop and appropriate set of expectations about college requirements.

Extended Orientation. Yet another approach is to provide students with a semester-long course that serves as an extended orientation to college, its requirements and its expectations. Sometimes referred to as University 101 courses (Gardner and Jewler, 1992), their goal is to help students understand the nature of their particular institution as well as the roles of the different people within it, including faculty, staff, and students. Such courses often help students to clarify their own objectives for college while simultaneously helping them to understand the requirements for achieving them.

A Comprehensive Model for Developmental Learners in College

Institutions of higher learning are themselves incredibly diverse in terms of their course offerings, their missions, and their strengths. The small liberal arts college poses challenges to its students that are distinct from those posed by a technical institute, while the large research university presents yet a different set of challenges. Thus, it is understandable that each kind of institution might offer unique support opportunities for its developmental learners. Yet, no matter the institutional focus, students are apt to benefit most when they sense that a thorough set of initiatives are available to them. That is, a comprehensive program of support can provide the academic assistance, the behavioral modelling, and the occasional prodding developmental learners may need in order to be successful. The specific components of the comprehensive program may vary according to institution, but in general will include an advising component, an academic assistance component, and a personal support component. The next section describes how these components are established at a large research institution.

Advising

Few entering students can be expected to understand in advance the variety of requirements imposed by their respective institutions. Indeed, requirements change from year-to-year and even faculty sometimes have difficulty keeping up with them. An extensive advising program thus becomes indispensable for helping students to understand requirements and how to meet them. This is particularly true in large institutions in which there may be a number of ways to fulfill a given requirement. Our comprehensive program considers sound academic advice to play a central role in student development and academic progress. We provide eight full-time advisors who work with students beginning with a two-day summer orientation program in which academic requirements are reviewed, placement tests taken, and course recommendations and selections are made. During the summer orientation students briefly meet with the staff and offices that will be of assistance to them during the academic year, thus establishing basic familiarity. During the academic year, students meet individually with their advisors about three times per semester as well as participate voluntarily in group advising and support sessions concerning such topics as study skills, selecting a major, or fulfilling medical school requirements. The Comprehensive program establishes a liaison with other university offices such as the Counseling Center to promote rapid referral when necessary. A Mid-Term Evaluation (MTE) for each course taken by developmental students during freshman and sophomore years is sought from faculty. This provides useful feedback to advisors about the progress being made by individual students, many of whom are ill-versed in interpreting their standing in college courses which do not provide periodic grade reports as was the case in high school. The MTE is a useful monitoring device that provides a basis for advisors to meet with students about their academic progress in particular courses and to offer suggestions for rectifying problem situations before they become irresolvable. In addition, a computerized information system is in place (CSPIS) to provide computerized access to academic records, to communicate with students via e-mail, and to serve as file for contacts and notations regarding each student seen in the advising context.

Academic Development and Assistance

Although developmental learners have promise for academic success, the very fact that they are admitted or assigned to a special program is indicative of a need for additional academic development. The comprehensive program includes course offerings in a

variety of introductory level courses for the purpose of providing additional instructional time, a focus on learning strategies appropriate to the discipline, and modelling of success by other developmental learners.

The additional instructional time is accomplished by a requirement that all “comprehensive program” courses meet for an additional class period each week in comparison to other sections of the same course. This signals to students that more, not less work is expected of those enrolled in “comprehensive” sections. The additional class time is used by instructors to accomplish the second purpose which is to acquaint students with effective strategies for learning course subject matter. Instructors may use the extra period to focus on how to recognize certain kinds of problems, for example, or help students identify problem-solving steps to follow. Modelling of successful strategies can be achieved by having members of the class solve a problem at the blackboard and explain to the class how it was done and why the approach used was chosen; or students in writing classes might read from papers submitted for grading and comment on them; discussion classes might rotate the assignment of preparing discussion questions or summarizing lecture or reading assignments. More recently, the development of a World-Wide Web Home Page for math sections allows students to access assignments, explanations, and to communicate with faculty from remote sites. These instructional techniques involve students with the subject matter as well as serving to identify effective models of good performance. Many of these same strategies can be used to good benefit in supplemental instruction or tutorial programs, but it is not uncommon for such an approach to be hampered by motivational problems as students see that “real” academic work involves credit and grades, both of which may be missing from supplemental instruction or tutorial programs.

Supportive Programs

It is widely recognized that developmental learners may need support academically and with respect to college requirements, thus academic assistance and advising programs are routinely offered. Increasingly it has been recognized that the affective domain is also important to student success (Collins, 1982). How one feels about the institution itself as well as how one feels about one’s place within the institution can be important motivational factors. Our comprehensive program seeks to address this concern in two concrete ways. The first is through a Summer Bridge Program available to promising developmental students identified in the admissions process as “at-risk” with respect to the academic demands of our institution. As its name implies, the Bridge Program is

intended to provide an opportunity for students to bridge the transition from high school to college through a rigorous academic summer experience. Participants have a summer opportunity to develop academically and results generally show improvement in such fundamental abilities as math or writing skills. But a by-product of the summer experience is that participants get to know each other as well as getting to know the campus, its offices, its faculty and staff. Students learn of the variety of demands that will be made upon them and where they can turn for help if needed. They establish supportive social networks through their summer experience which can help them to negotiate the larger set of social demands that emerge during the regular academic year. In general, summer programs allow developmental learners to become familiar with the institution during a period when staff and students can more readily establish supportive bonds than they can during the academic year when more students and more demands are evident.

Secondly, our comprehensive effort includes a mentoring program to promote one-on-one contact between a student and a knowledgeable faculty or staff member. Supportive alumni in the local community can also serve this role. A mentor has to be knowledgeable about the institution, available for individual meetings with the student, and willing to provide advice, encouragement, and sometimes a different perspective than the one that may be of pressing concern to the student at the moment. A key purpose of mentoring is to expand the student's circle of resources and thus build a broader social support network.

Both the Bridge Program and the Mentoring Program serve to create a sense among students that they belong to something larger than themselves and that they are valued members of those communities. This is important because college, particularly the first year at a residential campus, can be a time when one feels alone and isolated from that which is familiar, i.e., one's home community. At our institution the positive benefits that accrue to students who feel they belong to a particular program has been demonstrated in a number of programs. Of particular note is evidence suggesting that minority students who are part of an institutionally sponsored program have higher grade-point-averages and retention rates than do students who are not part of such programs. Matlock, et al (1992), have found a "comprehensive program" effect for minority students in a large research university. Such students seem both to feel better about the institution and to perform better academically than others.

Impact of the Comprehensive Model

The availability of a comprehensive program of academic support serves as a focal point both for institutional offices and for students. The University Admissions Office can more confidently admit students knowing that a wide array of programs and services are available to assist students in their adjustment, while students themselves often decide to enroll in institutions they perceive as supportive. Indeed, a significant proportion of all underrepresented minority students at our institution are affiliated with our comprehensive program (see Table 1). In terms of academic achievement, students in the comprehensive program perform quite well, with 89% earning grade-point averages (GPA) above 2.0, placing them in “good standing” academically. As a group, students in the comprehensive program attained a mean grade-point average of 2.6; more than 22 per cent attained a GPA of 3.0 or higher.

Tables 2, 3, and 4 illustrate the distribution of comprehensive program students in terms of GPA overall and for selective factors such as gender or race. Figure 1 graphs comprehensive program student GPA distribution, while Figure 2 represents the comprehensive model and its relations to students and other institutional offices.

In addition to objective measures such as grade-point average, anecdotal comments collected by impartial observers are also instructive with respect to understanding the program’s impact. As reported in “The Michigan Study” (Matlock, 1992), a large-scale examination of student expectations and experiences during their college years, students in the comprehensive program expressed such views as the following:

“My comprehensive program advisor has been very important. I usually go in to see her quite often and we just sit down and talk; she’s very helpful. She listens to me and when I get discouraged about how hard my classes are, she just cheers me up and tells me: “you can do it.” And she told me even if you decide that this isn’t what you want to do, there’re always alternatives.”

In comparison to other counseling available, in the comprehensive program “there is more of an effort to really understand what students are trying to find out...”

Such anecdotal responses add a human face to the student satisfaction surveys done by the program which consistently show approval ratings in the ninety percent range.

Discussion

As Thomas (1987) has pointed out, Black student success in higher education is affected by two broad categories of factors: the first category has to do with the personal characteristics of the students themselves; that is, their preparation levels for college work, their conduct in classes, and their motivation or aspirations. The second category of factors affecting black student performance includes institutional characteristics, such as the academic, racial or social climate on the campus; recruitment and retention practices; or the type and availability of financial aid. In fact, some studies have found that many black students lack the appropriate levels of preparation for college level academic success (Berryman, 1983; Davis, 1986). Low preparation for mathematics in particular effectively bars many otherwise promising black students from achieving success in such fields as science, medicine, because math functions as an essential gateway course for further work in these fields (Massey, 1992). Yet, Matlock, et al (1992) has found that Black students continue to have high aspirations for advanced degrees. These factors which affect black student achievement also apply generally to developmental learners in college.

The different models discussed in this article offer distinct forms of support to students with special needs and they all offer benefits. The comprehensive model attempts to combine the essential aspects of academic support into a single program that seeks to develop students' personal characteristics at the same time as it establishes an institutional environment that is supportive of student development and conducive to their academic progress. The fundamental area of impact is with respect to student characteristics, both academic and personal. Comprehensive program intensive courses emphasize subject matter as well as the skills needed to achieve success. Those sections in which students follow the prescribed steps and fulfill assignments routinely out-perform other sections of the course. The focus on academic skill development as well as the subject matter itself clearly pays off for these sections. But student personal characteristics also play a role and they are less subject to control. Even in Comprehensive Program courses some students are unsuccessful academically. Such failure is almost always attributable to frequent absences or failure to fulfill course assignment requirements. The reasons for multiple absences or missed assignments are as varied as there are students, but often include comments such as

the following: “I was pledging;” or “I had to work;” or “The assignment was more time-consuming than I had anticipated.” Other reasons may include over-involvement in student activities or family/home-based problems. In other words, many of the failures we do observe seem to be based in how students attempt to manage time and resources relative to the goals they have.

One response to this problem by the comprehensive program is to assist students to make the transition to college with certain Academic Socialization programs. These may consist of seminars, workshops, group counseling activities, or mentoring programs. The intent is to familiarize students with the expectations and requirements of successful college progress. Although such knowledge may be presumed of college students, in reality it is often lacking, as many of the students we are apt to serve are either first-generation college students or have attended inner-city high schools full of distractions which they have come to accept as normal. For example, metal detectors, hall sweeps and detentions, noise and general disruptive behavior are not uncommon in many urban schools. As Plato’s *Allegory of the Cave* suggests, what one is accustomed to seeing, understandably becomes what one thinks of as customary. Student’s individual histories follow them to college, but such histories may provide a vision that is not consistent with what college is actually like. The academic socialization effort seeks to acquaint students with realistic views about expectations and requirements, as well as responsibilities and conduct in college.

Higher education has long encouraged diversity in the student body (Rudenstine, 1996), including geographic, religious, cultural, language, economic, gender and racial diversity. Even so, it has only been during the last 30 years or so that the student bodies of our colleges and universities have begun truly to reflect the vast diversity of the nation and such recognition has manifested itself by nothing short of a remarkable increase in the numbers of women, racial and economic groups on campus. In fact, there has been a confluence of the racial and economic group contributions to diversity as the substantial numbers of minorities who have entered college have come from economic strata historically excluded from higher education. This enormous progress in providing access to higher education was no accident; rather it was the result of political activism epitomized by the civil rights era; by a maturing of the American psyche and a recognition that national productivity requires that all segments of the population be well-educated; by broader recognition of the global community in which we live and the implication that we share ultimately but a single resource.

Perhaps most importantly the change was brought about by a commitment from higher education communities to promote social welfare more actively rather than merely as a byproduct of the intellectual enlightenment deemed to result from college attendance. In promoting just such commitment, Lyndon Johnson argued:

“You do not take a man who has been hobbled his entire by ball and chain, and then suddenly remove the chain, and bring that man to the starting line of a race and say ‘compete’ and expect that you have been completely fair.”

Thus, providing opportunity also meant providing support so that those hobbled by impoverishment, racial discrimination, and the expectation of failure could be helped to compete. The federal government initiated Upward Bound Programs in 1964 to encourage and assist promising disadvantaged and minority high school students to pursue higher education. The higher education pipeline had functioned historically as if filters had been placed strategically to lessen the flow of certain types of students. The progress of the last thirty years has been analogous to fitting the pipeline with a pump, rather than a filter, to help move students through. This pump is represented in large part by the college level developmental programs offered around the country to assist students in the development of academic skills, effective study habits, and appropriate strategies for succeeding in college. Interestingly, the big push to offer developmental programs began after World War II with the GI Bill and services designed to assist returning veterans to adjust to the demands of college (Levine, 1993). Counseling and study skills services designed for veterans were expanded and modified as the next wave of “new students” entered college during the 1960s. By 1970, over 1,400 college “learning centers” were in existence with the general task of helping students to develop effective learning strategies and insights needed for success (Sullivan, 1978). These developmental programs shared a commitment to helping students learn and achieve, and did so through summer programs, supplemental instruction programs, tutorial programs, other special courses targeted specifically to meet the developmental needs of students who might otherwise be denied access to college. The nature and focus of such programs, of course, varies and exemplary models are described in this volume, of which the comprehensive model is but one.

The basic theory behind developmental programs at the college level is that students who are motivated can be helped to develop the kinds of skills necessary for academic success even though they are not as well-prepared for college success as many others. It means that such students have potential, but for a variety of reasons do not have the kind of competitive credentials that others may bring to college and so they

are likely to have an initial uphill battle before they will actually go on to achieve success. Generally it means they will need to be helped early on in their college careers to develop academically and personally so as to perform and to persist in the competitive college environment. It means that such students must learn of college professor's high standards and expectations even as they raise their own expectations of the caliber of work they can produce to fulfill course requirements. It means that developmental students must develop a realistic appreciation for the quality of work that will be done by other students. It is easy, but misguided for developmental learners to dismiss capable students as "nerds" or "brainiacs;" nor should developmental students belittle their own abilities, rather they must develop a personal sense of self-efficacy that says they know what to do and how to do it on order to succeed. These are some of the ancillary notions promoted by the comprehensive model. Together with sound academic advising, intensive instruction, and peer support, this variety of approaches serves to promote effective socialization to the academic community. The outcomes of the comprehensive model speak for themselves. Although students in our comprehensive program enter a highly competitive university community with standardized test scores that are two hundred points below the norm, they nonetheless achieve impressive levels of academic success. The 1,900 students in our comprehensive program have a mean GPA of about 2.6; 82% are in good standing academically (defined as 2.0 GPA or higher; about 22% have a GPA above 3.0); comprehensive program students have a graduation rate of 73 percent while the national average for all students is about 50 percent. The Comprehensive Program provides a variety of specific services and activities that support the cognitive development of developmental learners, but, in addition, the comprehensive model supports students in the affective domain. The program provides a system in which faculty and advisors combine their efforts in a single office; the classes, in particular, provide a means for students to express viewpoints and strategies that are validated by faculty and peers even as these ideas may be refocused to promote student academic development and progress. The frequent communication between faculty and advisors allows quicker response to potential problems and more effective control of the advising functions. Finally, the comprehensive program, with its proven track record of success, provides students with the sense of belonging that helps them to feel a part of the larger institution.

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