INTENSIVE DEVELOPMENTAL INSTRUCTION IN A PRE-COLLEGE SUMMER PROGRAM

By Steven R. Timmermans and Janice B. Heerspink, Calvin College

Abstract

Supplemental Instruction is an effective instructional strategy used in many colleges and universities. The concept has been modified here to take into account the cognitive and developmental factors of high school students. This instructional component was placed in a pre-college summer program and called Intensive Developmental Instruction (IDI). The method includes use of a model student—a certified K-12 teacher—who takes a college course along with high school students and college students. The model student, or IDI leader, teaches strategies appropriate for the course of study in an explicit way to the high school students. After using this approach for three summers, the preliminary results indicate that the high school students perform as well as the college students in the same courses of study. In addition, the results demonstrate a correlation between the grade attained in the summer course and grades earned later in college. Further research is needed in order to determine whether IDI contributes directly to this relationship.

Calvin College, a private liberal arts college of 4000 students in Grand Rapids, Michigan, began a pre-college program in the 1970's with an Upward Bound program for ethnic minority students. This program took students the summer before they were to enter college and provided course work in study skills and in English and mathematical skill development. The program died in the mid-70's, and a new program began in 1987. This new program, at first glance, appeared to be like the Upward Bound model: high school students after ninth, tenth, or eleventh grades participated in a summer program emphasizing academic skill development along with guidance about college planning, choice, and entry. Unlike Upward Bound programs, it only operated during the summer because it accepted students from across North America, Most Upward Bound programs are able to make an impact on students year-round due, in part, to proximity.

Both of these institutional attempts failed to closely examine and develop their instructional components. Levin and Levin identified five critical components of effective programs for at-risk minority students (proactive interventions, small group tutorials, study and test-taking skills, development of students' basic language skills, and quality instruction). They concluded that those who design

academic retention programs must incorporate "known-to-be-effective instructional components" (1991, p. 332).

Theoretical Background

Identification of the Instructional Component

Although Levin and Levin (1991) were addressing retention programs rather than pre-college programs, they provided a new place to begin: with the instructional component. Consequently, we asked what instructional component, used for academic development programs, would have promise in a pre-college program? The answer was Supplemental Instruction (Martin & Arendale, 1990). Using Supplemental Instruction (SI) as a basis, the summer pre-college program for ethnic minority students was redesigned, bringing high school students to campus, enrolling them in a college course in which a majority of those enrolled were college students, and including them in a seminar based upon many SI principles. Unlike many pre-college programs, this one was designed for students still in high school, not only for those who had graduated and were to begin college the following fall.

A concern with SI was that it had traditionally focused on *courses* rather than on the developmental needs of *students*. Therefore, the traditional SI approach was revised by including a student focus and using explicit instruction to help these high school students quickly recognize and use the strategies of learning necessary for college-level study. This evolution represents an alternate form of SI, an adaptation which we have named Intensive Developmental Instruction (IDI).

Intensive Developmental Instruction is a strategy for developing the learning skills of pre-college learners by having these targeted learners take a course beyond their current level of academic placement and mandating their involvement in a "how-to-learn" seminar in conjunction with the course; the seminar is led by a model student (a certified K-12 teacher who is also a student in the course) who observes the need for greater strategy sophistication, and then "teaches" that strategy in an explicit or direct instruction mode.

There are three unique features of IDI.

Zone of Proximal Development. Our definition of IDI refers to working with students "beyond their current level of academic placement." Vygotsky's Zone of Proximal Development represents that span between a learner's "actual developmental level as determined by independent problem solving" and his or her higher level of

"potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86).

The key idea here is that in order for learning to occur beyond the current level of independence, the guidance of a more knowledgeable other is necessary. With IDI the college classroom is the setting in which these high school students abruptly encounter learning demands which are likely to be beyond their current level of independence. *How* these students are guided to meet these learning demands and by *whom* such guidance is given requires further explanation.

Explicit Instruction. Given the learning demands confronting these students, we assumed that the learning skills of our pre-college students would need to be rapidly developed. Guiding the students to a higher level of learning sophistication would require direct and explicit instruction on how-to-learn in a college classroom. We turned to the work of Rosenshine (1986). Rosenshine's six functions that relate to explicit instruction for the mastery of basic skills are listed in Table 1.

Table 1. Rosenshine's Teaching Functions

1. Review Review homework. Review relevant previous learning. Review prerequisite skills and knowledge for this lesson.	4. Corrections and Feedback Give process feedback when answer is correct but hesitant. Give sustaining feedback, and clues, or reteaching for correct answers. Provide reteaching when necessary.
2. Presentation State lesson goals and/or provide outline. Teach in small steps. Model procedures. Provide concrete and negative examples. Use clear language. Check for student understanding. Avoid digressions.	5. Independent Practice Students receive help during initial steps, or overview. Practice continued until student responses are automatic. Teacher provides active supervision. Routines are used to give help to slower students.
3. Guided practice High frequency of questions or guided practice. All students respond and receive feedback. High success rate. Continue practice until students are fluid.	6. Weekly and Monthly Reviews

After-class seminars included direct instruction of study skills led by a model student with the content from the college course directing the selection and presentation of specific strategy use. In this way, we were able to not only predict

the study approaches that needed to be taught, but we also assisted the students in their transfer of these skills to subsequent demands in the course.

Model Student/Certified Teacher. Each course in which pre-college learners are placed includes a model student. This model student is similar to the model student of SI in that he or she is a student of the course as well as the leader of the related seminar. IDI differs, however, in that the model student is an experienced, certified classroom teacher. The teacher, who becomes a model student for the duration of the experience, is one who has taught in the elementary, middle, or secondary school. Most importantly, the teacher's knowledge and experience in the field of education enhances the ability to provide explicit instruction for these pre-college students.

These model student/certified teachers are assigned to a college course outside their teaching major for the challenge of learning must not be substantially more familiar to them than it is to the pre-college students for whom they are responsible. They write papers, do the readings, take the quizzes, and participate in classroom discussions. In short, they become students in the course. Some even take the final exam to earn credit in the course although most have no need of undergraduate credit and do not take the final exam. In addition, they receive two days of intensive training in the IDI approach as well as supervision and support throughout the program.

It is evident, then, that there are similarities between IDI and SI but also substantial differences. Table 2 provides this comparison.

Table 2. A Comparison of SI and IDI

	Supplemental Instruction	Intensive Developmental Instruction
Identification of "at-risk"	the course	the learner
Consideration of learner development	indirectly	directly
Role of the leader	model student; facilitates	model student; instructs and facilitates within the learner's zone of proximal development
Method of strategy induction	content allows student to discover the need; leader facilitates the "uncovering" of related strategy	content allows model student to discover the need for and with students; model student explicitly instructs

Description of IDI Methods

The explicit instruction that occurs in an IDI seminar is somewhat predictable given the nature of college course learning demands. As with many developmental education approaches, we group these demands in three areas: college reading, note taking, and test preparation. In each area, there are a number of skills to be developed. In **reading,** we want students to preview, annotate or make summaries while they read and to organize the material after they read (maps, charts, time lines, concept cards). In **note taking,** the goal is to have students become sophisticated in note taking and edit their notes following the class period (using column editing to identify organization, key concepts, and vocabulary/dates). With **test preparation,** the goal is to have students learn to predict test questions throughout the course, use organizational strategies to link course ideas together, review appropriate material, and be knowledgeable about how to construct essay answers and how to reason carefully through objective tests. These strategies or skills are identical or similar to traditional SI methods. The difference is found in the timing of the introduction of the strategies and in the explicit way they are taught to students.

Although the model student, hereafter referred to as the IDI leader, has an agenda of college learning skills he or she will teach, it is the course that dictates when and how the skills will be introduced. Thus, the IDI leader, as a completely involved student in the course, determines the teachable moment—that time when the IDI leader senses the other students' need for acquiring a learning strategy as they are faced with a particular facet of the course content. For example, the IDI leader helps the students recognize that when the course instructor moves to the second form of a concept (e.g., style of writing, psychological theory, civilization, etc.), it is time to begin a compare and contrast chart. When a new event is contributed to a chronology, it will be added to each student's time line. As expected, any number of techniques associated with SI may be appropriate depending on the need presented by the course content.

Because the IDI leader has the responsibility to predict what strategy needs to be acquired, the leader must be ready to present that strategy in an explicit way. Two things are helpful for the IDI leader in this area. First, each IDI learning seminar should provide basic materials that the leader has prepared to present a strategy. These materials include various colors of ink pens for each student (for annotating notes), index cards (to make concept cards), transparencies (for group synthesis), various sizes of paper (for time lines, charts, diagrams), law notepaper (for students' note taking and later editing), and a three-hole punch (for course material organization).

Second, we recommend that the leader begin making written plans for the seminar while participating in the class prior to the seminar. Such planning helps the IDI leader (1) recall the junctures from the course that he/she will use as a springboard in the IDI seminar and (2) anticipate the way in which the content can be linked to the explicit teaching of the appropriate strategies.

Based on these preparatory steps, the IDI leader is then ready to review any prerequisite skills or knowledge and then move to the presentation of the strategy, providing concrete examples and modeling procedures. Next, guided practice is begun, with corrections and feedback given as appropriate. Then comes independent practice, and finally, review. In other words, the IDI leader relies upon the six teaching functions outlined by Rosenshine (1986).

In summary, our approach advances the pre-college student beyond his or her typical level of learning sophistication. The IDI leader provides explicit instruction as to how to meet new learning demands in the context of the challenging college course content. We believe that the pre-college student, recognizing his or her need to become a more proficient learner, will act upon this explicit guidance or instruction and meet the challenge. Moreover, having met the immediate challenge, the pre-college student will become better prepared for college study in general.

The Use of IDI in a Summer Pre-college Program

In order to validate IDI as an effective instructional strategy for pre-college learners, we have analyzed its use over three summers in our pre-college program. Although the use of an experimental design is not possible, our descriptions provide the first step in this process of validation.

Participants

The total number of participants from three successive summers was 62, 42 females and 20 males. Of the females, 24 were African-Americans, 5 were Asian-Americans, 8 were Hispanic, 4 were Native American, and 1 was Arabic-American. Of the males, 14 were African-American, 2 were Asian-American, 3 were Hispanic, and 1 was Native American. At the time of their participation in the program, 3 of the students had completed their sophomore year in high school, 42 had completed their junior year, and 17 had completed their senior year. Some were from Native American populations in the Southwest; many others were from Detroit, Chicago, and Gary (Indiana). Still others came from Alaska, Puerto Rico, Oklahoma, and New Jersey.

These students had applied to the program and provided evidence of educational

motivation by means of recommendations and a high school grade point average of at least 2.70. In addition, all came from a college preparatory course of study in their high schools. Table 3 provides information about participant age, high school GPA, and ACT composite scores. They had demonstrated a common commitment to education by their willingness to spend four weeks of their summer to academic work. In addition, student participants were screened using locally developed basic skills tests. The range of English grammar and composition as well as mathematical skills was extensive. We did not, however, assess their learning strategy competence. Thus, while we believe all were motivated, there was a range of strategy development among the group, leading to an assumption that the students varied in readiness for college level learning both with respect to skills (English, math) and approach to learning.

Table 3. Mean Age, High School GPA, and ACT Composite Scores

	Age Mean (SD)	High School GPA Mean (SD)	ACT Composite Mean (SD)
Female Students (n = 42)	17.3 (.70)	3.42 (.35)	19.0 (5.80)
Male Students (n = 20)	17.5 (.76)	3.12 (.39)	21.3 (4.70)

Students were also given an opportunity to indicate their interest in various college course options. Then, based on skills and interest, students were assigned to an introductory college course in the humanities, social sciences, or natural sciences. In each course, we attempted to hold the standard that for every pre-college program student participant, there were two or more regular college students enrolled in the same class. If the number of student participants began to approach or exceed the number of regular college students in the course, we believed the professor might "teach down" to the class.

Procedure

Students attended their assigned course every morning from 8:30 a.m. to 12:00 p.m., five days a week. This is the pattern by which all summer courses are offered. Then, each afternoon, there was a one-and-one-half-hour IDI seminar for each course. Pre-college participants were *required* to attend the seminar; regular college students were *invited* to attend.

Outcomes of IDI

Outcome can be measured in two ways. First, they can be measured by means of the course grade obtained. Second, longer term follow-up of these students

beyond high school is also significant. Their presence alone in post-secondary education provides initial outcome information, but more importantly, their academic progress in these institutions is an even more significant factor in evaluating outcome.

Summer Course Performance

With respect to the first measure, there is no control group with which to compare these students' performance; however, the college students taking the same summer courses provide a comparison group, for both groups took the college courses for credit. This is a rigorous comparison group for these college students are most often upper division students who have already experienced two or more years of college. Due to the nature of scheduling summer courses at our institution, any given student takes only one course per term. Moreover, these college students are assumed to be representative of the student body at large for whom the mean ACT score at entry is 24. The results of this comparison, found in Table 4, are encouraging. These data suggest that the IDI students are performing as well as the comparison group.

Table 4. Percentage of Students Obtaining a Grade of C or Better

	IDI Student Participants (n)	College Students (n)
American Literature	100.0% (3)	88.9% (9)
Biological Science	75.0% (8)	75.0% (20)
History	84.6% (13)	78.3% (23)
Human Biology	60.0% (5)	63.0% (27)
Philosophy	80.0% (5)	75.0% (12)
Physics	100.0% (4)	100.0% (9)
Political Science	100.0% (4)	85.7% (7)
Religion	100.0% (4)	87.5% (7)
Social Anthropology	100.0% (8)	88.2% (17)
Sociology of the Family	100.0% (4)	100.0% (7)
Introduction to Special Education	100.0% (4)	100.0% (5)
Total	88.7% (62)	80.6% (144)

An additional within-group comparison of high school students is possible. Although the widely varying sizes of the subgroups by class-level prohibits a test of significance, the mean course grade is similar for the sophomores (mean = 3.13) and the seniors (mean = 3.04); whereas, the much larger group of juniors reflects perhaps a regression to the mean as well as the best picture of IDI results for students not yet approaching college (mean = 2.71). Of greater interest is the percentage of students passing the course with a 2.00 or better (a stated program goal). Meeting this goal were 100% of the sophomores, 88% of the juniors, and 94% of the seniors.

Subsequent College Performance: A Follow-up Survey

Second, we can understand outcome by examining the progress of the students who are now enrolled in a college or university.

Participants. Of the 62 students, 42 completed high school and are eligible to be college students. In our follow-up survey we were able to locate all but four of these students. The remaining 38 students—all of whom were enrolled in a college or university—were called, provided information about the nature of the follow-up survey, and asked to participate by completing a survey questionnaire, the Learning and Study Strategies Inventory (Weinstein & Palmer, 1987), and by signing a release so that we could obtain a copy of their college transcripts. Six students gave verbal consent but did not follow through with completing these tasks; two other students completed the three tasks, but the universities they attended would not release the transcripts due to financial holds placed on their records. Therefore, complete information was gathered on 30 students; 18 were students at Calvin College and 12 were students at other colleges or universities. Of the 19 females, 7 were African-American, 4 were Asian-American, 5 were Hispanic, 2 were Native American and 1 was Arabic-American. Of the 11 males, 6 were African-American, 2 were Asian-American, 2 were Hispanic, and 1 was Native American. Table 5 provides a further description of these students.

Table 5. Description of Student Respondents

	ACT Composite Mean (SD)	Pre-College Course Grade Mean (SD)	Current College Cumulative GPA Mean (SD)
Female Students (n = 19)	21.84 (4.66)	2.98 (.79)	2.78 (.77)
Male Students (n = 11)	23.18 (3.95)	3.08 (.66)	2.36 (.83)

Measures. Provision of informed consent was relayed over the phone and then substantiated by completion of the survey questionnaire, the Learning and Study

Strategies Inventory (LASSI), and a signed release form allowing us to request a copy of the college transcript. The **survey questionnaire** included five items regarding current college performance as it relates to the use of IDI in the summer pre-college program; other items on the questionnaire related to program satisfaction are not included in the results. The **Learning and Study Strategies Inventory** (LASSI) is a widely used tool that is designed to gather information about the learning and study practices of college students. The respondents were required to choose among statements indicating the degree to which the statement typically describes them. Scoring produces percentile ranks, so respondents can be compared to that which is normative for college students with respect to self-reported study practices and beliefs. Finally, **current college performance** is represented by the cumulative GPA posted by the participants at the time of data collection. Thus, the GPA is that which had been earned at the conclusion of the Spring, 1994 semester; since participants for this study were involved in one of three successive summer programs, the Spring, 1994 semester grade represents current status at differing class levels.

Results. The **survey questionnaire** sought to determine students' attitudes about the relationship of the summer pre-college experience to their current approach to college study. The results of this survey are found in Table 6 and demonstrate a number of trends. First, although as a group the males had higher ACT scores (see Tables 3 and 5), their mean college current GPA was considerably lower than the female's. In this context, the greater dissatisfaction of male students compared to female students about current academic performance is understood. Second, the mild rather than strong endorsement of statements relating to expectations and preparation may suggest that even with the benefit of the summer program these students find college study demanding and challenging. Finally, the questionnaire included the phrase *studying together in a group*. Rather than asking the students to respond to a number of specific IDI tasks and behaviors, this phrase was used to assist the respondents in recalling the afternoon IDI seminars with the gestalt of its social learning dimension. It is encouraging to note that of the five statements, this statement, which represents the benefits of IDI, received the strongest endorsement.

Table 6. Questionnaire Results

	Students	
	Female (n = 19) Mean (SD)	Male (n = 11) Mean (SD)
1. I am satisfied with my academic performance at this time.	2.35 (1.09)	3.27 (1.21)

	Students	
	Female (n = 19) Mean (SD)	Male (n = 11) Mean (SD)
2. Program participation helped me develop realistic expectations for college academics.	2.21 (.69)	1.91 (.79)
3. I would not be doing as well as I am in college if not for participation in the summer program.	2.84 (.93)	2.81 (.83)
4. Program participation helped me select a college that suits me best.	2.95 (.89)	2.45 (.66)
5. Studying together in a group each afternoon taught me the importance of learning with others.	1.74 (.85)	1.91 (.90)

Key: Strongly Agree = 1; Agree = 2; Neutral = 3; Disagree = 4; Strongly Disagree = 5.

The results from the **LASSI** provide a more detailed analysis of these respondents' beliefs about their study practices and attitudes. Moreover, these results, found in Table 7, provide an opportunity to compare students' beliefs with what is normative for college students. Results suggest that as a group these students present typical to better-than-typical reports of their study practices and attitudes in the context of the test norms. However, only limited conclusions may be drawn, for these results are not matched to a control group.

Table 7. Percentile Ranks for LASSI Results

	Students	
	Female (n = 19) Mean (SD)	Male (n = 11) Mean (SD)
1. Attitude and interest.	66.21 (27.92)	46.27 (26.20)
2. Motivation, diligence, self-discipline, & willingness to work hard.	63.37 (21.56)	52.36 (24.34)
3. Use of time management principles for academic tasks.	67.63 (19.15)	55.82 (28.73)
4. Anxiety and worry about school performance.	45.53 (22.24)	61.64 (31.57)
5. Concentration and attention to academic tasks.	67.37 (22.50)	69.18 (25.38)
6. Information processing, acquiring knowledge and reasoning.	62.32 (25.59)	56.45 (26.85)
7. Selecting main ideas and recognizing important information.	54.89 (27.69)	71.09 (21.19)

	Students	
	Female (n = 19) Mean (SD)	Male (n = 11) Mean (SD)
8. Use of support techniques and materials.	65.42 (26.07)	50.73 (30.37)
9. Self testing, reviewing, and preparing for classes.	64.63 (23.43)	52.73 (21.14)
10. Test strategies and preparing for tests.	53.32 (26.02)	56.82 (25.25)

Finally, the relationship of a variety of variables to **current college performance** is understood by examining the Pearson correlation coefficients. Of the five survey questionnaire items, the correlation coefficients ranged from -0.22 to +0.44. For eight of the ten LASSI factors, the range was from +0.14 to +0.40; however, for two factors, *Attitude and Interest (ATT)* and *Motivation, Diligence, Self-Discipline, & Willingness to Work Hard (MOT)*, the relationship was significant: ATT: +0.53 ($p < .01$); MOT: +0.61 ($p < .01$). The relationship of the ACT Composite to current college performance was +0.21. Finally, the relationship between the course grade received in the summer program to current college performance was found to be 0.53 ($p < .01$).

Discussion. The relative strength of the relationship between current college performance and the two LASSI items and the summer program course grade is encouraging. The relative lack of relationship between ACT and the current level of performance is not surprising given what others have reported for the predictive use of the ACT with minority students in college (Jones & Watson, 1990, p. 72). Even more encouraging is the relationship between current college performance and the summer course grade. Although we cannot conclude that the positive results provided in Table 4 are a result of IDI, we have demonstrated that there is a relationship between eventual college success and the degree of success these high school students accomplished with the assistance of IDI.

Nothing promotes success like success, and this project is no different. Perhaps the most striking observation we can offer is to describe the group intimacy the IDI approach develops. Often the environment in which students take their first college course is one of loneliness and adjustment. For most students the first course is during the first semester, a time when students must begin living away from home, finding new friends, and meeting the challenges of college study. In sharp contrast, this program offers students the opportunity to take their first college course with the addition of a rather intimate, small group of students (4 or 5) led by a model student/teacher who is committed to their success. Because the course meets daily and the IDI session each afternoon, these four or five students are with each other continuously. Moreover, each small group is part of a slightly larger group of students who together have come for a residential four-

week summer program. With IDI, students find, while still in high school, that their first college course can result in success because of the intimacy they develop with peers in the same class and the ways in which they approach learning as a group.

The contributions of IDI must be validated by studies using experimental and control groups. Given these encouraging indicators, the next step is replication of the intervention with similar and other groups of students.

Steven R. Timmermans, *Dean for Instruction and Associate Professor of Education, Calvin College.*

Janice B. Heerspink, *Tutor Coordinator, Peer Tutoring Program, Calvin College. Ms. Heerspink also directs Entrada, a summer program at Calvin College that uses IDI.*

References

Jones, D., & Watson, B. (1990). High-risk students and higher education: Future trends. ASHE-ERIC Higher Education Report No. 3. Washington, D.C.: The George Washington University.

Levin, M., & Levin, J. (1991). A critical examination of academic retention programs for at-risk minority college students. Journal of College Student Development, 32(4), 323-334.

Martin, D., & Arendale, D. (1990). Supplemental instruction: Improving student performance, increasing student persistence. Kansas City, MO: Center for Academic Development, University of Missouri-Kansas City. (ERIC Document Reproduction Service No. ED 327103).

Rosenshine, B. (1986). Synthesis of research on explicit teaching. Educational Leadership, 43(7), 60-69.

Vygotsky, L.S. (1978). Mind in society: The development of higher psychological processes Cambridge, MA: Harvard University Press.

Weinstein, C., & Palmer, D. (1987). Learning and study strategies inventory. Clearwater, FL: H&H Publishing.

JOIN THE CONVERSATION

SPREADING THE GOOD NEWS: THE FAR-REACHING BENEFITS OF DEVELOPMENTAL EDUCATION

By Gene Beckett, Shawnee State University

Sadly, when developmental education makes the news, it's usually bad news. Developmental education seldom gets good press. The title of an article recently appearing in *The Chronicle of Higher Education* noted that developmental education had won a "rare victory." This was good news, a "victory," but the modifier "rare" told the fuller story.

Developmental education takes pot shots from different directions. Legislators give more than their share as a quick review of the periodical literature for the past couple of years will show. From California to Ohio to Georgia and other states, legislators and government officials have been criticizing developmental education, aiming particularly at its cost. One solution to the alleged high cost of developmental education being pursued in several states is the relegation of developmental education to the two-year college sector, where taxpayers, it's claimed, get more bang for their buck. Our critics claim that developmental education is an expensive solution to an unnecessary problem. In their minds the people we serve shouldn't need our help. You know the story: We teach them stuff they have been taught before. Developmental education is nothing more than human product recall, paying twice for the same thing.

In actuality, developmental education does not cost much rather, it's a bargain. It's a bargain when one compares its cost with the cost of other college and university academic programs. For example, a statewide study of remedial education at public colleges and universities conducted by the Maryland Higher Education Commission during the 1994-1995 academic year found that the amount spent on remedial courses and activities represented 1.2 percent of total higher education expenditures. It's a bargain especially when one looks at everything the dollars spent on developmental education buy, that is, the many and diverse positive results, outcomes, and benefits of developmental education. These results, outcomes, and benefits are far-reaching, extending to individuals, society, and the institutions where developmental education programs are housed.

First in line to benefit from developmental education are individuals. We developmental educators are most aware of these benefits because of the daily contact we have with our students. What we see daily are the individuals who, if it were not for developmental education, would be denied the opportunity to participate in higher education and denied subsequently the many personal and financial benefits of a college degree. These are the people, underprepared college candidates, for whom developmental education represents the on-ramp to the expressway of higher education, the means by which they can get up to speed academically and merge successfully with the fast-paced college curriculum. Developmental education paves the way for anybody, whatever their educational background, to prepare and qualify for admission to college-level course work. Although the statistics vary, it is safe to say I am talking about 40-50% of the students entering higher education today.

Less recognized among the individuals benefiting from developmental education are the fully college-prepared students, who throughout their college experience take advantage of learning assistance programs on practically every campus. These learning assistance programs include peer tutoring, study skills development, and Supplemental Instruction (SI). Indeed, by far the greatest number of students seeking tutorial assistance in my learning center are students enrolled in rigorous mathematics and science courses, not developmental courses. Was not Supplemental Instruction first conceived to assist medical students—hardly underprepared—in high risk courses?

In fact, as the definition of developmental education offered by the National Association for Developmental Education (NADE) points out, developmental education serves all students "at all levels of the learning continuum." Individuals benefiting from developmental education span the entire range of college students, from the poorly prepared to the gifted, from the students in pre-college mathematics, writing, and reading classes, to students taking graduate level courses. If it were not for developmental education, a great number of college students would never have qualified to enter college and pursue a college degree. If it were not for developmental education, a great number of college graduates would not have survived college and earned a degree.

Second in line to benefit from developmental education is society. For many individuals who lack the skills necessary to obtain gainful employment and who must rely on public assistance, developmental education represents the means by which they can become job ready, get off welfare, and become taxpaying contributors instead of welfare recipients. Not surprisingly, many Federal programs designed to move individuals from welfare to work, successful programs like ones funded by the Jobs Training Partnership Act (JTPA), rely on the assistance of departments of developmental education to provide basic skills

instruction. Unfortunately, in the past few years, fewer tax dollars have been directed to support these kinds of programs. I am perpetually frustrated by legislators who can't see beyond the tips of their noses and who bemoan the cost of remedial courses, lacking the vision to understand that the cost of remediation is far less than the cost of sustaining people on welfare all their lives.

As Leslie and Brinkman (1988) point out, society only stands to gain when colleges and universities educate the maximum number of its citizens. Individuals given the opportunity to become college educated will not only make more money but will spend more money to the benefit of the economy. They will also be less likely to commit crimes and more likely to be politically involved, to volunteer in the community, and to donate to charities. Aren't all of these benefits to society worth the cost of offering developmental education?

Too often our faculty and administrative colleagues lose sight of the benefits our institutions receive through developmental education programs and services. For example, colleges and universities concerned about enrollment should be reminded that developmental education enlarges significantly the pool of prospective college students. I like to say we developmental educators "grow" college students. We take the best seeds—our developmental students--put them in the best growing medium—our courses, our learning centers, our offices--and we give them the best nourishment—our commitment to access and success for all who seek educational opportunity, regardless of their academic preparedness. Applying the 40-50% statistic I stated earlier, without developmental education colleges and universities could expect to have 40-50% fewer students to admit. Within this group are academically underprepared students that institutions would especially not want to exclude, including students gifted in the arts and athletics, and even the relatives or close friends of wealthy and influential alumni.

Colleges and universities should likewise be reminded that developmental education enhances student retention. Students who get a good start in college through developmental education are more likely to succeed in their subsequent college course work. Furthermore, once in the mainstream curriculum, students continue to receive support through the learning assistance we provide. Those people on campus principally responsible for enrollment management should be especially appreciative of the enhancing effects developmental education has on retention. A Georgia State University study concluded that a retention increase of only 1% would be the recruitment equivalent of 17% of the incoming freshman class (Commander & Smith, 1995).

Colleges and universities benefit from developmental education in two other important ways. First, they benefit by safeguarding the quality of their core curriculum. With learning assistance available, faculty do not have to lower their

academic standards in the classroom in order to avoid failing too many students and contributing to their dropping out. Second, a quality developmental education program can actually attract students to a college or university. What institution competing for students would not want to advertise its ability to develop academic potential, initiative, talents, and values for a wide range of students? What college or university would not want to be listed among the schools mentioned in a recent book (Pope, 1996) *Colleges that Change Lives: 40 Schools You Should Know About Even if You Are Not a Straight-A-Student?* We must convince our institutions to advertise, not hide, their developmental education programs.

The benefits of developmental education are far-reaching, but we developmental educators have not done a good job publicizing them. The fact that developmental education continues to be attacked, especially by cost-minded legislators, attests to the fact that we must do a better job of spreading the good news about the benefits of developmental education. Each of us must do our part, sharing the benefits mentioned in this article with legislators, government officials, senior administrators, boards of trustees, faculty colleagues, and the general public. The benefits of developmental education are clearly there for all to see. We must show them.

Gene Beckett, *Director of Developmental Education, Shawnee State University, Portsmouth, OH. Dr. Beckett served as NADE President, 1995-1996.*

References

Commander, N. E., & Smith, B. D. (1995, February). Developing adjunct reading and learning courses that work. Journal of Reading, 38(5), 352-60.

Leslie, L. L., & Brinkman, T. (1988). The economic value of higher education. New York: American Council on Education/Macmillan.

Pope, L. (1996). Colleges that change lives: 40 schools you should know about even if you are not a straight-A student. New York: Penguin Books.

BOOK REVIEW

CHANGING THE ODDS: OPEN ADMISSIONS AND THE LIFE CHANCES OF THE DISADVANTAGED

By Nancy Bornstein, Alverno College

In many states today, where welfare reform eliminates any assisted access to a college education, this study's findings of the long term outcomes of the City University of New York's (CUNY) open admissions policy of the early 1970s are sobering. Open admissions worked—not completely and not necessarily as envisioned as a cure for racial inequalities—but it created tuition free educational access otherwise not available for minority students, whites, and women that resulted in a 56% rate of earned BAs and matching economic benefits for these individuals.

In *Changing the Odds: Open Admissions and the Life Chances of the Disadvantaged,* David Lavin and David Hyllegard examine data about the freshman classes of 1970, 1971, and 1972 that spanned the period from high school through 1984. This study provides a unique look at the actual long term results of CUNY's open admissions policy including undergraduate and graduate educational achievement and occupational success, as influenced by educational attainment.

Envisioned as a vehicle to extend educational access for minority students,

> (t)he open-admissions policy has been, arguably, the most ambitious effort to promote educational opportunity ever attempted in American higher education. It represents one of the last great examples of the 1960s commitment to the idea that social policy could and should be used to advance equity in U.S. society. Almost overnight the university was transformed from one of the nation's most selective institutions to its most accessible. After the doors of CUNY opened wide, over 200,000 freshman crowded in between 1970 and 1975—including many of minority origins and from impoverished backgrounds who otherwise would have had no chance for college. These students entered an arena where few from their families and neighborhoods had been before.

These students are familiar to many of us in developmental education: they were older than the traditional age student, often had poor educational backgrounds, and were low income, first generation college students who worked while going to school.

Lavin and Hyllegard's findings regarding the direct results of the policy were unambiguous. The representation of minority students increased dramatically, as did the numbers of white students and women, all of whom would not have been academically eligible for CUNY without the new admissions policy. As a result, BAs, MAs, and advanced degrees earned by blacks, hispanics, and whites doubled and tripled earlier rates of attainment. In analyzing work achievement—salary, status, and intrinsic rewards, the authors found that educational accomplishment was by far the most important factor determining how well students did. Students with AA degrees surpassed those without a college degree. It is of particular significance that the findings showed AA degrees afforded minimal impact on work attainment, while those with BA's or post-graduate degrees were significantly more successful than those with lesser degrees. However, each area of achievement was less successful for minorities than for whites, and the percent of minorities receiving AA's was significantly higher than that of whites. In other words, open admissions did not eradicate ethnic inequalities, though it did reduce the gap.

The authors present a cogent analysis of this major shortcoming in the results. They remind us to view this experiment in educational opportunity within the context of our society. Minority students are typically "subject to a series of cumulative disadvantages that begin early in life" (p. 198) and cannot simply be overturned by intervention at the college level. For instance, most CUNY minority students were from low income families, families without college experience or clear educational expectations. These students predominately ended up in the nonacademic track in high school and began college at a disadvantage. Their weak academic backgrounds and the need to work created new disadvantages such as part-time schooling and lower grades that decreased the number of graduates or lengthened the time to graduate, which in turn influenced labor market results. Lavin and Hyllegard also point out that the labor market was not a level playing field. CUNY graduates met with lower pay for women and employer discrimination regarding minorities.

What is clear from this study is that thousands of students, particularly minorities, achieved educational and economic gains that would have been closed off to them without open admissions. What is equally clear from the literature is that the real effect of this policy will be felt in the next generations as educational advantage builds into the next generation. The CUNY students' children are in higher income families, will start school better prepared, and have parents able to

educationally support them at home and in school. In an era of quick fixes that often reduces, eliminates, or puts out of reach educational options for low income people, these findings are a wake-up call for all of us.

The implications of these findings are significant, yet complicated, for developmental educators. Clearly, access to education makes a difference and by implication, academic support systems increase the chances for success. However, we can't be successful in a vacuum—we have to work for wide educational access for all students. If these students are turned away from higher education due to welfare reform, higher and higher costs, entrance tests, tracking into two year colleges, or because of attacks of lowered standards, the disadvantages will continue to accumulate.

Nancy Bornstein, *Director of Instructional Services, Alverno College, Milwaukee, Wisconsin.*

MCLCA Summer Institute
June 25 - 29, 1997
Loyola University of Chicago
Chicago, Illinois 60626

What is the Summer Institute?

The Summer Institute is a seminar designed for new and experienced learning assistance professionals. The format includes an in-depth group session in the morning which is led by a mentor and which highlights her specialty, individual mentoring sessions in the afternoon, opportunities for exchange throughout the day, and opportunities for recreation and rejuvenation. The work is intensive and focused, but in a relaxed atmosphere.

What is mentoring?

Mentoring is an opportunity for you to receive individualized advice, guidance, and support from leading learning center professionals throughout the Institute.

What are the topics?

The topics address core issues concerning learning centers: management and evaluation; student success through thinking in reading, writing, math, science, and comprehensive tutoring programs. In addition, there are panel discussions on current research and on learning styles.

Why attend the Summer Institute?

The Summer Institute is personalized. It allows you to plan new programs or enhance existing programs. It allows you to interact with leaders in the field, to make friends, to form professional networks, and to gain the experience of others. Graduate credit is available. Call (312) 621-9650, ext. 3416 for details. Opportunities are available to visit local centers.

What is MCLCA?

The Midwest College Learning Center Association (MCLCA) is a regional organization dedicated to promoting excellence among learning center personnel. MCLCA defines a learning center as a place where all students, from entering freshmen to graduate and professional school students, can be taught to become more efficient and effective learners.

For further information about the 1997 Summer Institute, please contact
Anna Hammond • MCLCA Immediate Past President
National-Louis University • 18 South Michigan Avenue • Chicago, IL 60603
(312) 621-9650, ext. 3307

PUBLICATION GUIDELINES

As an official publication of the Midwest College Learning Center Association, *The Learning Assistance Review* seeks to expand and disseminate knowledge about learning centers and to foster communication among learning center professionals. Its audience includes learning center administrators, teaching staff and tutors as well as other faculty and administrators across the curriculum who are interested in improving the learning skills of postsecondary students.

The journal aims to publish scholarly articles and reviews that address issues of interest to a broad range of learning center professionals. Primary consideration will be given to articles about program design and evaluation, classroom-based research, the application of theory and research to practice, innovative teaching strategies, student assessment, and other topics that bridge gaps within our diverse discipline.

1. Prepare a manuscript that is approximately 12 to 15 pages in length and includes an introduction, bibliography, and subheadings throughout the text.

2. Include an abstract of 100 words or less that clearly describes the focus of your paper and summarizes its contents.

3. Type the text with double spacing and number the pages. Follow APA style (Publication Manual of the American Psychological Association, 4th edition, 1994).

4. Include your name, title, address, institutional affiliation and telephone number along with the title of the article on a separate cover sheet; the manuscript pages should include a running title at the top of each page with no additional identifying information.

5. Submit all tables or charts camera ready on separate pages.

6. Do not send manuscripts that are under consideration or have been published elsewhere.

7. Send three copies of your manuscript to the following address: Dr. Karen Quinn, Co-Editor, The Learning Assistance Review, Academic

Center for Excellence, University of Illinois at Chicago, 1200 West Harrison, Suite 2900, M/C 327, Chicago, Illinois 60607-7164.

You will receive a letter of acknowledgment that your manuscript has been received. The review process will then take approximately three to six weeks at which time you will receive further notification related to your work. If your manuscript is accepted for publication, a computer disk will be requested.

MCLCA MEMBERSHIP INFORMATION

What is MCLCA?

The Midwest College Learning Center Association (MCLCA) is a regional organization dedicated to promoting excellence among learning center personnel in 12 midwestern states: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. MCLCA defines a learning center as a place where all students, from entering freshmen to graduate and professional school students, can be taught to become more efficient and effective learners.

What Does MCLCA Do?

The MCLCA Constitution identifies the following objectives for the organization:

- To promote professional standards for learning centers through education, curriculum design, research, and evaluation.
- To promote support for learning centers by acting on issues affecting learning assistance programs.
- To assist in the development of new learning centers.
- To assist in the professional development of personnel in learning assistance programs by providing opportunities for sharing professional methods, techniques, and strategies.
- To provide an annual conference for the exchange of ideas, methods, and expertise in learning assistance programs.
- To publish educational information and research in the field.

- To develop and expand a communications network among learning assistance professionals.

- To coordinate efforts with similar professional groups.

How Can I Participate?

The MCLCA Executive Board is anxious to involve as many learning center professionals as possible in achieving its objectives and meeting our mutual needs. Therefore, we invite you to become a member of the Midwest College Learning Center Association. The membership year extends from October 1 through September 30, and annual dues are $40.00. Membership includes the *MCLCA Newsletter* and *The Learning Assistance Review,* discounted registration for the annual MCLCA Conference, workshops, in-service events, and announcements regarding upcoming MCLCA activities. We look forward to having you as an active member of our growing organization.

g learning

ing center
ur mutual
st College
October 1
cludes the
egistration
ents, and
forward to

MCLCA Membership Application

(Journal subscription included)

Name: _____

Institution: _____

Address: _____

Phone: (_____) _____

Fax: (_____) _____

E-mail address: _____

Send application form and a check made out to MCLCA for $40.00* to:

Susan Witkowski
MCLCA Membership Secretary
Alverno College
P.O. Box 343922
Milwaukee, WI 53234-3922
414/382-6027

* International members please add $5.00 to cover the cost of mailings.