Learning Communities and the Reconstruction of Remedial Education in Higher Education[1]

Vincent Tinto
Syracuse University[2]

Colleges and universities have been struggling to meet the needs of growing numbers of students who begin higher education with limited academic skills. The number of these so-called "remedial" students has grown over the years so that today it is estimated that nearly 4 in 10 students enter college with some form of developmental education need. In some institutions,"remedial" students now make up a majority of entering student body, many requiring "remediation" in virtually every academic skill area. In many cases, students enter college with no more than sixth-grade level skills in reading, writing, and mathematics. The result is that many institutions spend a good deal of time and effort, and invest substantial resources in programs, now more commonly referred to as developmental education, to help these students acquire the skills they need to succeed in college. Indeed, it is estimated that nearly 90 percent of all colleges and universities, including many "elite" institutions, now offer some type of remedial coursework.

The challenge of meeting these needs is far from trivial even in the best of times. When budgets are constrained, as they are now, it has become even more difficult if only because of the growing criticism of both the cost and effectiveness of past efforts to address the needs of developmental education students. Indeed, the view is increasingly being expressed that "remedial education" has no place in higher education, certainly not in the universities which are seen by many to represent the best of our higher educational system. If "remedial" education in higher education is to exist at all, it is argued, it should be located in the "lower levels" of the higher educational system, in particular in the two-year junior and community colleges of our nation that are best situated to serve "remedial" students.

Learning communities: An alternative approach to developmental education

The merits of this view aside, it is the case that much of the criticism of remedial education springs from the high costs and limited success of past efforts to assist developmental education students - efforts which have typically served to isolate, and in some cases, marginalize those students in stand alone courses for which no college credit can be earned. But there are alternatives. A limited, but growing number of institutions are pursuing differing ways of
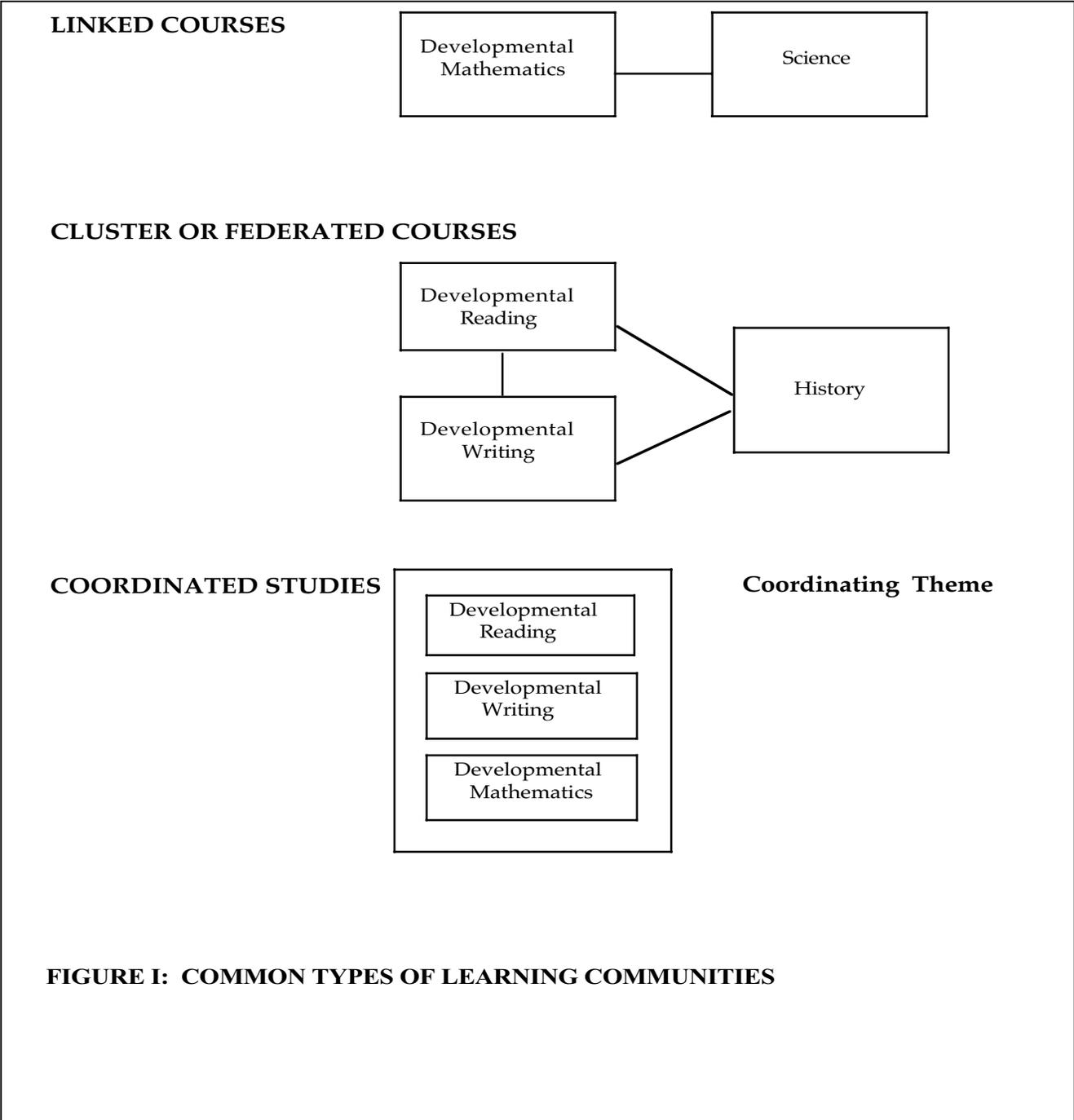
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addressing the educational needs of developmental education students and have done so with reportedly greater success than has been the case typical of past efforts. One of these alternatives, that which is the focus of this paper, is the adaptation of learning communities to the needs of students who require developmental education assistance (Hill, 1985; Gablenick, MacGregor, Matthews, & Smith, 1990).

It should be observed that the growing popularity of learning communities reflects the now widespread recognition of the importance of involvement to student education. Partially the result of my own work (1975,1987) and that of researchers like Astin (1987,1993), Boyer (1987), and Pascarella and Terenzini (1991), we have come to appreciate how important student involvement or integration is to student attainment. Simply put, the more students are involved in the social and academic life of an institution, the more likely they are to learn and persist. For educators, however, the critical question is not whether that is the case, that is whether involvement matters, but how to make it matter and how to do so in ways that are meaningful to all, not just some, students and to commuting as well as residential campuses. Learning communities are a response to that question.

In their most basic form learning communities are a kind of co-registration or block scheduling that enables students to take courses together. The same students register for two or more courses, forming a sort of study team. In some cases, typically referred to as "linked courses," students will enroll together in two courses, most typically a course in writing or math with a course in selected literature or, in the case of math, a course in science (see Figure I). In the larger universities such as the University of Oregon and the University of Washington, students in a learning community may attend two or more lecture classes with 200-300 other students but stay together for a smaller discussion section (Freshman Interest Group) led by a graduate student or upperclassman. In other cases, such as the Federated Learning Community at LaGuardia Community College, students take three or more courses in which they are the only members of the class. In this way, they form a "community of learners" whose members are all studying the same material. In Seattle Central Community College however, students in the Coordinated Studies Program take all their courses together in one block of time so that the community meets two or three times a week for four to six hours at a time.

Typically, learning communities are organized around a central theme which links the courses -- say, "Body and Mind" in which required courses in human biology, psychology, and sociology are linked in pursuit of a singular piece of knowledge: how and why humans behave as they do. The point of doing so is to ensure that the sharing of a

LINKED COURSES

| Developmental Mathematics |——| Science |

CLUSTER OR FEDERATED COURSES

Developmental Reading
Developmental Writing
History

COORDINATED STUDIES   **Coordinating Theme**

Developmental Reading
Developmental Writing
Developmental Mathematics

FIGURE I: COMMON TYPES OF LEARNING COMMUNITIES

curriculum provides students with a coherent interdisciplinary experience that promotes a deeper type of learning than is possible in stand alone courses. The themes, of course, can vary as do the audiences to whom the learning community is directed. At New York's LaGuardia Community College, for instance, learning communities are designed for students studying for a career in business (the Enterprise Center). At Cerritos College in California, they are also for students in science and engineering. In other institutions, such as Iowa State University, learning communities serve the needs of new students. In those cases, learning communities frequently link the shared courses to a freshman seminar. In other cases, where undecided freshman are the members of the learning community, the linked seminar may be a developmental advising class.

Understandably, learning communities require faculty to collaborate in a variety of ways. Faculty in linked courses typically plan their assignments so that the activities of one complement that of the other. In the Coordinated Studies programs at Seattle Central Community College and Skagit Valley Community College, faculty will collaborate in the very construction of courses, their common themes and content. The point of such collaboration is to ensure that the sharing of courses provides for a coherent educational experience, one that is intentional structured to promote student education.

Clearly there is no one type of learning community, there are many. But nearly all have two things in common. One is *shared knowledge*. By organizing the shared courses around a theme or single large subject, learning communities seek to construct a coherent first year educational experience that is not just an unconnected array of courses in, say, composition, calculus, modern history, Spanish, and geology. In this way, students come to share, as a community of learners, a body of knowledge that is itself connected. The other is *shared knowing*. By enrolling in several classes together, students come not only to know each other quickly and fairly intimately in a way that is part and parcel of their academic experience, but also come to share the experience of trying to know or learn the material of the shared courses. Indeed, some faculty members actively promote shared knowing by employing collaborative or cooperative pedagogies within and between the linked courses. These pedagogies, which stand on their own right, require students to take an active role in the construction of knowledge and do so in ways which require them to learn together as connected learners. Typically students are asked to work together in groups so that the work of the group cannot be accomplished without each and every member of the group does her or his part.

Learning Communities for Remedial Students

The growing recognition of the potential of learning communities to improve the education of students has led some institutions to adapt the learning community model to the needs of remedial students (see Appendix A). They have correctly asked the question "If learning communities can work for other students, why not for our students who need remedial education assistance?"

Understandably, the way hey have done so has reflected both the settings in which adaptation has been tried and the developmental needs of the students for which the programs are designed. Non-residential colleges serving large numbers of commuting students and part-time students who typically work while in college are more likely to begin their programs by linking two courses one of which is developmental in character, another which is focused on a content or field of study (e.g. Delta College). Other institutions, which serve larger numbers of full-time students, often begin by asking "remedial" students to enroll in three or more courses together any one or all of which will be developmental in character (e.g. Skagit Valley Community College and the University of Texas at El Paso). In either instance, the number and nature of those courses will mirror the developmental level of students being served. In those cases where students may have one or perhaps two remedial needs and where their level of need is not great, the learning community invariably involves at least one content course (e.g. Delta College, Brooklyn College, and William Rainey Harper College). In this way, students are able to make academic, degree credit, progress while receiving developmental assistance. In other cases where student remedial needs are substantial and/or where the skill levels are far below those needed for participation in the

regular curriculum, the learning community may consist entirely of developmental courses (e.g. The University of Texas at El Paso). Here the reader should refer to Appendix A which provides information about a number of different learning communities for "remedial" students in both two and four-year college settings.

The New Student House: A Case Study

While the number of learning communities for developmental students has increased, the research on their effectiveness has been sketchy at best. To date there has been only one detailed study of a developmental education learning community and but several comparative assessments of their effectiveness in promoting student success. The one detailed study is that by this author and two colleagues at Syracuse University on the New Student House program at LaGuardia Community College (see Tinto, Goodsell, and Russo, 1994).

Program Description

The New Student House involves six courses with any given student taking four of the six courses depending on the level of their developmental needs. These are:
ENA 099: Basic Writing (6 hr).
CSE 095: Essentials of Reading I
ENG 099: Basic Writing (4 hr.)
CSE 098: Essentials of Reading II
HUC 101: Basic Speech Communication
FSM 000: New Student Seminar

Each student takes only one writing and one reading course, the choice of which depends on an assessment of student needs. But students may move between sections depending on their changing needs (e.g. a student in a lower section acquiring sufficient skills to benefit from placement in the higher section). Students in different sections may also meet as one group as might occur when a special topic or presentation is made by the

faculty (e.g. study and time management skills). Indeed, class schedules are constructed to include space for common meetings of the whole or the "common meeting hall."

It is important to note that the New Student House combines the work of both faculty and student affairs staff, in particular that of a trained counselor. That person helps "keep students on line" by serving both as a course facilitator and a student counselor. In this manner the very structure of the program promotes collaboration between academic and student affairs sides of the house.

The pedagogy of the program stresses collaborative learning. It employs small group classroom activities in which students work closely with each other during individual class meetings (temporary groups) and over the life of the course (base groups). Improvisatory theatre pedagogy, through which students learn role playing in contextualized situations is also employed. In this case, it is used in the linked speech course as a vehicle to promote the acquisition of speech skills. In addition, the program makes full use of the college's computer-based learning facilities, especially in writing. Students do most of their writing and write all of their graded essays on the computer.

Research Procedures

The research project sought to answer two basic questions regarding the program. First, does the program make a difference? Second, if it does, how does it do so? To answer these questions, we used two forms of inquiry, longitudinal panel survey and qualitative case study, to study the experiences a sample of first-year students. Though conducted separately, the two forms of inquiry were linked by a common concern, namely to understand not only what students experienced, but also how those experiences were associated over time with their behaviors and changing views of learning and their subsequent persistence. In this very important

manner, the methods were complementary to one another, each yielding information that together provided a richer sense of the impact of program participation than any one method could provide on its own.

Survey Methods

We sampled first-year students in both the New Student House and in similar courses but not part of the New Student House. Questionnaires were administered in the beginning of the Fall quarter and later at the end of that quarter. The first questionnaire collected information on a range of student attributes, prior education, current life situations (e.g., family and work responsibilities), educational intentions, learning preferences, perceptions of ability, and attitudes regarding education. The second questionnaire, administered at the end of the quarter, collected information on current life situations, a range of classroom and out-of-classroom activities, estimates of learning gains, perceptions of the institution, and expectations regarding subsequent enrollment. Measures of student engagement in classroom and out-of-classroom behaviors were derived from Pace's College Student Experience Questionnaire. The questionnaire was modified to suit the specific context of the institution and program being studied. While ruling out comparisons with prior research, the modifications allowed us to better capture both the intent and impact of program participation upon student behaviors.

In the following Fall, information was obtained from institutional records about students' earned credits, grade point averages, and quarter to quarter enrollments (Winter, Spring, and Fall of the following academic year). These data, together with students' estimates of learning gains, formed the outcome variable set. Estimates of learning gains, grade point averages, and subsequent persistence, in that order, were seen to represent time ordered outcomes that followed from college activities.

Qualitative Methods

The intent of the qualitative component of the study was to understand, from the students' point of view, how participation in a collaborative learning program influenced students' learning experiences and how those learning experiences fit in with their broader experiences as first-year students. Students were selected to be interviewed using a purposeful sampling. Our sampling plan included talking to students who were diverse in many ways--age, gender, race, and attitude about the program. We visited each site for three one-week periods during the academic year. The first site visit took place during the early part of the Fall quarter. It allowed us to become familiar with the institutions. In addition we were able to see how the programs were functioning at an early stage. The second site visit took place during the later part of the Fall quarter; the programs were ending and the students were able to tell us about their experiences during the quarter. The third site visit was made during the middle of the Spring quarter when students were able to reflect upon experiences with and without the program.

Data collection consisted of participant observation, interviews, and document review. Participant observation was conducted in and around all program classrooms, on campus, and in the surrounding community whenever possible. Interviews consisted of numerous informal conversations with students, faculty, and staff; over forty-five scheduled open-ended interviews with students and staff; approximately twenty informal telephone interviews with key informants; and thirty-six scheduled interviews with students which followed a semi-structured protocol. These latter interviews lasted an average of forty minutes. Document review consisted of school publications and class materials, course syllabi, and schedules.

Data analysis was conducted in an on-going process which enabled us to explore themes as they emerged and to pursue unexpected leads during the second and third site visits. Data were analyzed by reading and re-reading fieldnotes and interview transcripts to familiarize ourselves with them, assigning codes to portions of the data, identifying emerging themes in the data, and generating working hypotheses based on these themes. The working hypotheses were checked against the data and modified, as necessary, before being presented as findings. This process of incorporating emerging themes from the data with hypotheses constructed during the study is characteristic of inductive analysis used in qualitative research. The strength of inductive analysis is that it facilitates the "grounding" of new models or theories.

Findings

Findings can be summarized under three headings each of which reveals something about the underlying forces which link experiences in the New Student House to student success. These are Building Supportive Peer Groups, Shared Learning-Studying Together, and Involvement, Learning, and Persistence.

Building Supportive Peer Groups

Participation in the learning community enabled students to develop a network of supportive peers that helped students make the transition to college and integrate them into a community of peers. This community of peers, formed in their learning communities, provided students with a small, knowable group of fellow students with whom early friendships were formed. Some friendships lasted; others faded. But in all cases students saw those associations as an important and valued part of experience.

Many students saw participation in the learning community as an important part of being able to manage the many struggles they faced in getting to and participating in class. Through seminars, group projects, class discussions, and self-evaluation reports, the program contributed to the development of supportive peer groups that helped students balance the many struggles they faced in attending college. The groups, which developed within the classroom, extended beyond it providing support which students saw as influencing their desire to continue college despite the many challenges they faced. One student, looking back on her experience in the program, put it this way:

"In the House we knew each other, we were friends, we discussed and studied everything from all the classes. We knew things very, very well because we discussed it all so much. We had a discussion about everything. Now it's more difficult because there are different people in each class. There's not so much togetherness. In the cluster if we needed help or if we had questions, we could help each other."

Shared Learning - Studying Together

The shared learning experience of learning communities did more than simply cement new friendships; it served to bridge the academic-social divide that typically plagues student life. Often, social and academic concerns compete; causing students to feel torn between the two worlds so that students have to choose one over the other. Learning communities helped students draw these two worlds together.

The development of these interpersonal relationships was important because it was against this backdrop of a supportive network of peers that academic engagement arose. And it did so both inside and outside the classroom. Groups that formed within the classroom often extended beyond the classroom in informal meetings and study groups. Once these were in operation, students were able to turn towards the material presented in class. A

common perception among program students was captured in the following comment:

"You know, the more I talk to other people about our class stuff, the homework, the tests, the more I'm actually learning... and the more I learn not only   about other people but also about the subject because my brain is getting more, because I'm getting more involved with the   students. I'm getting more involved with   the class even after class."

Involvement, Learning, and Persistence

It is not surprising then that students in the New Student House had higher peer and learning activity scores. Their engagement with their peers in and outside the classroom served to involve them more fully in the academic matters of the classroom. They spent more time with their peers and more time with their peers on class matters, even after class. As a result, they spent more time studying and, not surprisingly, performed better on a variety of outcome measures. For instance, New Student House students had higher rates of passing their courses than did comparison group students and, with one exception (ENA 099), higher pass rates than did students college-wide (Table 1) and a somewhat better rate of earning A or B in their courses (Table 2).

Given that students in the New Student House also reported themselves more satisfied with their experiences at LaGuardia, it is not surprising that they also persisted at a higher rate than did comparison group students. From Fall to Fall, students in the New Student House persisted at a rate of 69.8 percent while those in the comparison group persisted at a rate of 62.5 percent.

It must be observed that students also spoke of a learning experience that was different and richer than that with which they were typically acquainted. They saw the shared learning environment of the New Student House as providing an educational setting that was different from and, for most students, richer than those they have experienced in the past. As one student noted when reflecting of his experience in the New Student House:

"So you're constantly having to think, re-think, and even re-re-think what's going on in light of all the feedback you're getting from all these different points of view and what   it does is shape and mold your own point of view to a much finer degree ... we not only learn more, we learn better."

Other Studies of Learning Communities for Remedial Students

Hunter College, part of the City University of New York System (CUNY), has linked two writing courses with an American History course designed for developmental students (Smoke & Haas, 1995). The reason for linking these courses was taken from the study done by Pereira and Cobb (1990) that found that developmental students cite "a low rate of earning credits [as] a major factor in the decision to drop out of college"(p28). By linking the content course, American History, with the reading and writing course, the students are able to earn credit and also gain experience in a content course. Smoke and Haas (1995) conducted a preliminary study on the outcomes of the course with respect to course completion and a passing grade on the CUNY Writing Assessment Test (WAT). They found that 90% of the students in the linked courses passed both courses as well as the WAT. Students who were not in the linked course passed the WAT at a rate of 40-75% over the course of six semesters from Fall 1988 to Spring 1991.

Also designed with the purpose of reducing the isolation caused by remedial courses, a program at Sacramento City College integrated writing, study skills, reading and a content area into a program entitled the Higher Education Learning

Package (HELP). The program was designed for non-traditional, high-risk students. This program is an effort to reduce the isolation and the conflict often felt between skills courses and content courses. Luvaas-Briggs (1984) reports the positive results of an evaluative study conducted by the Assessment Center at Sacramento City College. Students that were in the HELP program attempted more units in subsequent semesters, had higher grade point averages and better retention than a control group.

More recently Wilcox, del Mas, Stewart, Johnson and Ghere (1997) investigated the effects of the "package course" model on developmental education students at the University of Minnesota Twin Cities. The package consisted of a content course, a writing course, a study skills course and a non-credit math course. During the term that the students were enrolled in the learning community, the students had a higher mean grade point average than control students in the same content course taught by the same instructor. This study explains that the higher GPA was only during the quarter of enrollment in the package course. This may suggest that learning communities create an environment that is conducive to higher GPA's for developmental education students.

Instructors at Spokane Falls Community College also compared the course grades and completion rates of students in a psychology course that is linked with a study skills course to a freestanding psychology course (MacGregor, 1991). Seventy percent of the students in the linked course category and 46% in the unlinked course tested at the developmental level. At the conclusion of the semester, students in the learning community had a higher completion rate and the developmental students outperformed their counterparts in the control group on the same tests. A second study at the same institution compared a group of developmental students in a linked biology/study skills course that was taught by the same instructors. The

researchers found that a higher completion rate was achieved by students who were in a linked biology / study skills course than those that were only in the biology course (MacGregor, 1991).

Expanding on the initial findings reported in 1991, Spokane Falls Community College reported further findings regarding the paired biology / study skills course that elaborated on the outcome of improved grades (Washington Center News, 1994). Diane DeFelice, the professor of the Biology 101 course, discussed significant outcomes with respect to grades for the spring 1990 semester and the Fall 1993 semester (see Washington Center News, 1994). Compared to the freestanding class in 1990, the linked course had a reduced number of D's and F's. DeFelice notes that typically in a beginning science course the grade distribution presents itself in the form of an inverted curve. For the paired course in the fall of 1990, the students grades presented themselves in a more bell-shaped curve. For the fall 1993 class, fewer students in the paired courses received D's and F's. Other evidence of learning was presented in that students' notes were more organized, readable and complete than those that were not enrolled in the paired course.

Also reporting positive grade performance relative to learning community involvement, Skagit Valley college compared a learning cluster designed for developmental education students, entitled "Reading, 'Riting,' and Rats," with a control group of students in the content area of psychology (Witmer, 1991). The cluster consisted of a psychology course, a reading course and an english composition course. The psychology course in the cluster and the freestanding psychology course were taught by the same instructor. Even though students in the learning cluster had significantly lower placement scores, they did just as well on the objective tests. In addition to the positive outcome associated with test performance, Witmer also reported that students in the cluster retained information

and theory in a manner comparable to the control group. Moreover, the students demonstrated significant affective and attitudinal changes suggesting positive self esteem and a joy for learning. These outcomes are illustrated through the open-ended self reports that were conducted with students. Students stated "[the learning community]....made me confident in my thinking abilities," "[I] gained confidence in myself," and "[I am] proud to be a member of the cluster."(Witmer, 1991, p3).

While Hunter College, Sacramento City College, the University of Minnesota Twin Cities, Skagit Valley College and Spokane Falls Community College report positive performance associated with learning communities, Seattle Central Community college reported an outcome of increased retention associated with involvement in learning communities (MacGregor,1991). Jack Bautsch, in the Office of Institutional Research at Seattle Central Community College, compared the retention rates of learning community students in developmental andvocational programs (see MacGregor, 1991). He found that sixty-eight percent of the students in the fall semester learning communities were still enrolled compared to a campus-wide rate of forty-nine percent.

Building Learning Communities for Remedial Students: Lessons Learned

Though learning communities for developmental education students require a good deal of effort, more than a few have been quite successful, indeed, as a group, more successful than the more traditional forms of developmental education. Their experiences yield important lessons to those who seek to follow in their footsteps.

Making Pedagogical Choices: Different Strategies for Different Needs:

Learning communities, in being adapted to the needs of developmental education students, have, as noted earlier, tended to take on two forms. The first links one and sometimes two developmental education courses to at least one content course. The second combines several developmental courses into one self-contained learning community. In this case, the learning community consists of only developmental education courses.

The first, the linked course model, is more typically applied to situations where student learning needs are more limited and/or where developmental needs are specific to a particular skill area. The second, the federated learning community or cluster course model, is more typical of those situations where students have substantial developmental needs that span several skill areas. Each approach has its own strengths and set of challenges. For instance, the second approach to learning communities for developmental education which places students in courses that are all developmental in character runs the risk of marginalizing or ghettoizing those students and stigmatizes them for being "remedial." For their part, students may come to see themselves as second-class citizens who do not participate in the regular curriculum and do not earn "college credit" for their work. They sometimes feel like they have been required to "sit at the back of the educational bus" of the college.

Equally challenging is the pedagogical task of making such learning communities more than a simple combination of recitation and drill which, when added one upon the other, may discourage students. It is for this reason that those who use the second type of

learning community for developmental education students argue that the courses must be driven by a compelling theme or problem that locates students interests and engages them in the material and in skill building activities. Many such programs employ the Coordinated Studies model in which faculty teach together in the joint classes as a faculty team. Such collaboration makes it easier to organize the learning community about a theme or problem which ties together the material of the otherwise separate courses. The issue of pedagogical coherence tends to be less a problem in the "linked course" model of learning communities. In these cases, the linkage of skill as applied to a particular college credit bearing content course tends to drive student engagement.

Making Appropriate Placement: Assessing Student Educational Needs

The effectiveness of learning communities for "remedial" students hinges in part upon the accurate assessment of student developmental needs and placement in appropriate educational settings. Any program, however elaborate, struggles when it is faced with students with very different educational needs. Unfortunately the common use of cut-off scores on an assessment device as a criterion of placement often proves to be a less than accurate indicator of the specific developmental needs of students. That is the case, for instance, when some students find themselves placed in a developmental education course for an entire semester or quarter when they may need assistance with only one or two skills. What is needed are more refined assessments which localize the needs of students so that one can decide whether the person needs a full course, a specific module, or several visits to a learning center.[i]

Building Programs over Time: Lessons in Implementation

Using Pilot Programs

Building successful programs takes time. Successful programs typically begin as small, pilot programs that focus on a small, relatively well-defined problem and/or student population (e.g. they frequently begin with one linked course before expanding to other linked courses or cluster course models). The advantages of starting small are several. First, resources for pilot programs are typically easier to obtain than are funds for permanent programs because they involve smaller expenditures and do not commit the institution to long-term investments. Second, pilot programs provide the faculty and staff an opportunity to learn how to run such programs without being overwhelmed with the administrative difficulties that large, complex programs normally face. Third, pilot programs can serve as demonstration projects whose success paves the way for fuller implementation over time.

Building Institutional Support

Gaining institutional support for developmental education learning communities hinges on a number of issues. Perhaps the most important is that of the institution's commitment to developmental education generally. Institutions that are not commitment to developmental education and to serving the needs of students who require developmental assistance are unlikely to commit themselves to learning communities for those students.

Given that commitment, the next challenge facing learning communities is that of gaining the additional support, often in the form of faculty "release-time," needed to develop an effective learning community. Getting such support is, however, a two-way street. Here is where program assessment comes into play. While institutions that are committed to developmental education are often willing to support a pilot program of limited duration, its willingness to support such programs over the long-term hinges in good measure upon the ability of the learning community staff to demonstrate to the leadership of the institution that its expenditure of scarce resources yields benefits to the institution and to its students (e.g. in the form of increased success rates in courses and in persistence). The difference between remaining on the margins of institutional life and becoming institutionalized so that the program's existence no longer depends on two or three people is in large measure a reflection of the programs ability to successfully makes its claim upon institutional resources via program assessment.

Building Faculty and Staff Involvement

Making learning communities for developmental education students work, is hard work. Without an intentional strategy of incentives and rewards, it is quite difficult to get the cooperation of all but the few "choir" members who find such work rewarding in its own right. It is challenging work not only because it is hard work, but also because it typically requires faculty to collaborate in a way that forces them to question some of their own views and come to a shared view with their faculty team about how to teach together. Not all faculty relish such opportunities. Absent of any faculty role models, many faculty are understandably concerned about their ability to collaborate.

It is understandable then that learning communities typically prosper when early faculty collaborators model collaboration for other faculty. Their ability to negotiate differences and collaborate across disciplinary and departmental lines provides invaluable lessons to other faculty and staff not only about the possibilities of collaboration but, more importantly, about the many benefits that arise from such collaboration. Again, there is an important role for institutional incentives and rewards which support such modeling and collaboration.

Other challenges

Issues of Cost and Resources

Learning communities are not, in themselves, very costly. Given their success rate, they tend to have a lower cost/benefit ratio than traditional developmental education programs. Nevertheless, there are real costs. Typically these take the form of the investment of incentives and rewards, and reduced-load or "release time" for faculty. The latter is particularly important because it enables faculty to spend the time needed to plan and organize the learning community curriculum. Such planning time is especially important during the early stages of the program development when the learning community is first being put into place. Understandably, the reallocation of faculty load is not a simple matter, especially on unionized campuses.

Working with the registrar, advisors, and counselors

Successful implementation of learning communities requires the cooperation of a number of key staff across the campus, most notably the registrar, advisors, and counselors. The registrar is important because of the need to protect block schedule courses that make up the learning community. For instance, it is desirable that at least two of the learning community courses are scheduled on the same day, ideally one hour apart, in the same building, indeed in the same classroom if at all possible. The point of such scheduling is that

it aids the continued work of students across the linked classes. In effect, it provides students with a "learning space" which promotes their working together. Advisors and counselors, for their part, need to advise students not only as to existence of learning communities, but also of their enrollment in the appropriate classes. This is particularly important when learning communities are aimed at new students.

Rewards and unexpected benefits

Learning communities yield a number of important benefits. As noted earlier, they benefit students in both learning and persistence outcomes, and they benefit their institutions in the form of increased persistence. Just as importantly, they benefit the faculty who teach in the learning community. Typically, faculty speak of being reinvigorated, of coming to rediscover the joy of teaching. As one faculty member of a learning community put it:

> "Meeting other faculty in a context of discussing teaching is exhilarating. I'm more enthused about teaching than I've been in years and its all about rediscovering myself as a learner."

In this manner, learning communities may have long-term consequences for staff development and institutional renewal. In enhancing faculty teaching, they serve to broaden the educational "repertoire" of the institution and expand, in turn, the possibilities for student learning.

Closing Comment

Responding to the needs of students who require developmental education assistance is no simple matter. Despite our hopes, there is no magic "cure," no single strategy that solves all problems. But there are alternatives to the current practice of stand alone "remediation" classes that appear to be more effective in promoting student learning than past practices. Learning communities and the collaborative pedagogy that underlies them is clearly one of those alternatives. As such they deserve our attention. To that end, this background paper concludes with a brief bibliography on learning communities and an appendix that describes a number of different developmental education learning communities and the contact people with whom you should talk to learn more.

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Table 1

Pass Rates Among Students in LaGuardia Community College

Course	New Student House	Comparison Group	College-wide
HUC 101	93.7	75.7	75.4
ENA 099	43.4	50.0	48.9
ENG 099	67.4	57.5	51.2
CSE 095	91.3	83.3	76.4
CSE 098	87.5	70.6	77.6

Table 2

Percentage of Students Earning Grades of A and B at LaGuardia Community College

Course	New Student House	Comparison Group	College-wide
HUC 101	82.5	51.4	50.7
ENA 099	47.4	33.3	37.9
ENG 099	67.5	47.5	40.0
CSE 095	34.8	75.1	53.5
CSE 098	40.0	52.9	56.3

Where: ENA 099: Basic Writing (6 hr. Version) CSE 095: Essentials of Reading I
ENG 099: Basic Writing (4 hr. Version) CSE 098: Essentials of Reading II
HUC 101: Basic Speech Communication FSM 000: New Student Seminar.

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Appendix A

Developmental Education Learning Communities

Delta College

Contact Information: Roslyn Weedman
University Center, MI 48710
(517) 686-9534

Dr. Betty Jones, Dean of General Education
(517) 686-9298

Program Descriptions:

" Race, Class, Gender and Popular Culture"

Enjoy the challenges and advantage of becoming a better thinker, reader, writer and student as you explore the many aspects of race / gender / class issues in our culture. This English thematic learning community combines an English Composition course (5 credits) with an Effective Reading and Vocabulary Development course (4 credits). (9 credits)

"Four For Success"

A combination of four courses designed to provide information and skills necessary for success in college. This learning community combines the following courses: English (5 credits), Study Skills (2 credits), Pre-Algebra (2 credits) and Computer Skills (3 credits). This unified program is designed for returning students and those whose ASSET scores indicate a need to improve their basic skills. (12 credits)

" Quantum"

Quantum will provide practical "hands on" learning experiences to assist you to "learn by doing." It is an exciting learning experience in a special environment that will expand your potential for success in college. The program is limited to 15 students and meets Monday - Thursday.Quantum combines English (5 credits), Pre-Algebra (2 credits), Oral Communication (3 credits), and Study Skills (2 credits). (12 credits)

"Discovering Your Creative Self"

Explore your artistic and cultural heritage along with your own creativity.This learning community links the same courses as "Race, Class,Gender and Popular Culture," but offers a different thematic link. (9 credits)

LaGuardia Community College

Contact Information: Phyllis Van Slyke
                                                 (718) 482-7200 ext. 5656

Program Description:

"New Student House" Program

This learning community is designed for basic skills students and combines Basic Writing (0 credits), Fundamentals of Reading (0 credits), Oral Communication (3 credits), and New Student Seminar (1 credit). (4 credits)

LaGuardia also has designed a "house" for ESL students. The courses in this learning community include: Fundamentals of Reading (0 credits), English as a Second Language (0 credits), New Student Seminar (1 credit), and Oral Communication for the non-native speaker (3 credits).

Pairs and Clusters

LaGuardia Community College also offers a variety of pairs and clusters which combine basic skills and ESL course with credit bearing courses such as ESL for Business (0 credit) with Keyboarding (2 credits) and Principles of Accounting (4 credits).

Seattle Central Community College

Contact Information: Rochelle De La Cruz
                                   (206) 587-5415

Program Description:

Seattle Central Community College describes their learning communities in terms of the population of students that they serve. The following are examples of such programs:

ESL Programs

Seattle Central Community college has designed a learning community for ESL students that links Reading&Writing (10 credits) with a Library Resource course (3 credits) or a Computer course (2 credits).The Reading and Writing course is a combination of Eng 098 and Eng 099.

Developmental Students

Seattle Central Community College has also combined Developmental English with Nutrition for both pre -101 native and non-native students.

In addition, a vocational preparation LC has been designed which combined Basic Skills w/ trade and industry courses. The students involved in the course were developmental but not necessarily ESL - they spoke primarily Hawaiian Creole.

Combined ESL and Developmental Students

Seattle Central Community College has also brought ESL and developmental students together in an English focused learning community English based in a theme of cultural pluralism.

Shoreline Community College

Contact Information: Pam Dusenberry
                                   Assistant Humanities Chair for English
                                   16101 Greenwood Avenue North
                                   Seattle, WA 98133-5696
                                   (206) 546-4101

Program Description:

"Critical Thinking in College and Life" (Formerly titled: "Looking In....Looking Out..")

Developmental students learn to think critically and reflectively by looking into themselves and out at their family, college,work and civic communities.Strategies for reading, writing, problem-solving, self-reflection, group process, time management, goal-setting and involvement are learned in the context of their own college and life interests.To enroll in this course, student register for English 080 (10 credits) which in focuses on reading,writing and critical thinking.

" Reading and Writing in the Academic Subjects"

The course combines English 090 (5 credits) with Study Skills 100 (5 credits). Developmental students learn about the various academic subjects and improve their reading,writing and critical thinking abilities in these subjects.The course helps students explore and understand their academic and career interests. (10 credits)

Skagit Valley College

Contact Information: Lynn Dunlap
                                 Language and Literature
                                 2405 East College Way
                                 Mount Vernon, WA 98273
                                 (360) 416 7680

Program Description:

"Reading, 'Riting', and Rats" (offered several years ago)

A combination of General Psychology, College Reading and English Composition.The cluster meets two hours daily and awards a total of 11 credit hours upon successful completion.

Special Topics in Reading linked with Improving Grammar & Composition

Improve both your reading and writing skills (or study skills) through this unique connection of English 96 (5 credits) and English 97 (5 credits). Course activities include classroom, group process, and computer aided instruction, with practical applications to writing, com- prehension, and vocabulary development.

"C3: Computation, Comprehension, Communication"

Developmental learning communities are a "cluster" of classes to help student prepare for success in college level courses. These course are joined by a single theme and emphasize group work, skill development, and study skills. This winter the learning community available is "C3." It links English (5 credits) , Math (5 credits) and a Social Science (3 credits) course. (13 credits total)

Spokane Falls Community College

Contact Information:
Jan Swinton
M.S. 3050
3410 Fort George Wright Drive
Spokane, WA
(509) 533-3603

Program Description:

Diane DeFelice, an English instructor, and Jan Swinton, a Biology instructor, of Spokane Falls Community College have paired an introductory Biology course with a developmental-level Study Skills Course. In describing the rationale for the pairing the courses Swinton states, "If we can teach students how to learn biology, and not just the biology, they could take this approach to other classes."

Assessment Efforts:

Several outcomes were reported when evaluating the effectiveness of the learning community:

*   A reduced number of D's and F's were reported as compared to the freestanding course.
*   The Inverted curve grade distribution from former semesters moved to a more bell-shaped distribution.
*   Student notes were more organized, readable and complete.
*   Students in the linked courses reported a positive change in self-perception.

University of Texas - El Paso

Contact Information: Nancy Marcus
                                           (915) 747-6760

Program Description:

The University of Texas - El Paso offers several combinations of cluster-type learning communities. The clusters for developmental education students are as follows:

*   Pre-calculus math, biology, English composition.
*   Pre-calculus math, engineering, English composition
*   Pre-calculus math, engineering and remedial English.
*   Remedial math, biology, and English composition.

Assessment Efforts:

UTEP has conducted some informal assessments regarding the clusters and found the following:

*   Pass rate in the Pre-calculus cluster is twice that of the non-clusters.
*   Pass rate in the remedial math cluster is three times that of non-cluster remedial math.
*   During interviews with students in the Fall of 95 and 96 clusters, the students said that they felt connected, a sense of community and were linked to students and teachers.

UTEP is currently conducting a formal evaluation of their programs which is both participatory and multi-method in nature.

Contact Information: Jacque Mott
                                  1200 West Algonquin Road
                                  Palatine, IL 60067-7398
                                  (847)925-6894

Program Descriptions:

"Coming of Age: A Multicultural Experience"

This fully coordinated offering explores a coming-of-age theme with emphasis on reading by authors from diverse backgrounds. This learning community integrates a Reading course (3 developmental credits) with and English course (3 communication credits).

"**Discovery**"

Receive extra support to meet the challenges of the college environment through these five linked course that address the needs of new students. This package links Reading 099 (3 credits), English 100 (3 credits), Orientation 101(1 credit), Psychology 106 (3 credits) and Psychology 107 (2 credits).

Other Programs

Brooklyn College (NY)   Martha Bell (718) 951-5738
                                                   mjbell@brooklyn.cuny.edu

California State University-Los Angeles: Barbara Martinez / Steve Teixeira
                                                   (213) 343-3200 / (213) 343-3965
                                                   steixeira@calstatela.edu

Daytona Beach Community College (FL):   Casey Blanton (904) 254-2612
                                                   blanton@dbcc.cc.fl.us

De Anza College (CA):   Edwina Stoll (408) 864-8579
                                                   els2904@mercury.fhda.edu

Holyoke Community College (MA):   Rashna Singh (413) 552-2365

Hunter College (NY):   Trudy Smoke (212) 772-5742

Longview Community College (MO):   Patty Illing (816) 672-2074
                                                   Illing,Patty@longview.cc.mo.us

Moorpark College (CA):   Olivia Menchaca (805) 378-1419
                                                   omenchaca@vcccd.cc.ca.us

North Seattle Community College (WA):   Rita Smilkstein (206) 528-4545

Sand Hills Community College (NC):   Susanne Adams (910) 695-3914
                                                   sa914@sandpiper.sandhills.cc.nc.us

SUNY College at Potsdam (NY):   Rebecca Thompson (315) 267-2476
                                                   thompsr@potsdam.edu

University of Minnesota-General College: Kimberly Wilcox (612) 625-3472
                                                   wilco001@tc.umn.edu

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[i] The interested reader should contact the National Center for Developmental Education at Appalachian State University, Boone, North Carolina. Several institutions, for instance, Georgia State University and North Carolina State University at Raleigh are now pilot-testing a more refined series of assessment devices which are more accurate indicators of student developmental education needs.

Learning communities and the reconstruction of remedial education in higher education. V Tinto. Instructions to students at low-proficency level in Elearning. Twenty-five community colleges participated in a study that tracked 71 percent of 592 students who successfully enrolled in a remedial program in 1990. Follow-up interviews of program completers gathered information about further education, employment, family, and facts about post-remedial life. A criminal justice search was also conducted on the entire study cohort. These data were the basis for this first comprehensive national study on community college remedial education students. High Education Private Institution Entrance Examination Remedial Education Japanese High Education. These keywords were added by machine and not by the authors. This process is experimental and the keywords may be updated as the learning algorithm improves. This is a preview of subscription content, log in to check access. Preview. Yamada, R. (1999). Daigaku ni okeru donyu kyoiku no jissai (The Actual Situation of Remedial Education in Higher Education Institutions). Osaka: Poole Gakuin Daigaku Donyu Kyoiku Kenkyukai (The Research Group on Remedial Education in Poole Gakuin University).Google Scholar. Copyright information. © Kluwer Academic Publishers 2002. While working at the methodological issues the lecturer should pay special attention to the consistency of the material taught, the style of the lecture and the contact with the audience. The lecturer should make ample use of visual aids so that students take an active part in it. The theoretical material given at the lecture is better perceived by means of seminars, laboratory training and hands-on training. The aim of the seminar is to enable students to deepen their knowledge of the themes studied at the lecture. Under the supervision of a professor or an experienced teacher a student or a

Higher education erosion is a continuation of a long trend. College graduates, we know, are not what they used to be. In 1970's, 1-in-2 college grads aced the Wordsum vocabulary test given by the… Cal State to overhaul remedial education, replace no-credit with credit-bearing classes (March, LA Times). For example, about 38 percent of last fall's 61,757 CSU freshmen were found to need remediation in either English or math. Algebra is the most failed course at community colleges across the country. Is it time to nix the requirement? (July, NPR). That's the argument Eloy Ortiz Oakley, chancellor of the California community college system, made today in an interview with NPR's Robert Siegel. Text a Higher Education in Great Britain. Higher education of Great Britain comprises a considerable amount of past-school education, including part-time as well as full-time studies carried on in technical colleges, teacher training colleges, art colleges, institutes of adult education and so on. Higher education, consisting of degree and equivalent courses, has experienced a dramatic expansion. The number of higher education students in Britain almost doubled between 1979 and 2009 to 1.6 million, so that today around 30 percent of young people enter full-time higher education. There are some

Education is a top priority of the mankind since times immemorial across the globe. Owing to its importance, education has developed and undergone a sea change over time. What was once restricted to… What was once restricted to a dedicated community of teachers and students, education was made available to a larger population through schools. And now through e-learning, all the world is a school where anyone from anywhere with a will to learn can be a student. A simple definition of e-learning is 'learning conducted via electronic media and through the Internet'. In the words of Derek Stockley, 'E-learning is the delivery of learning, training or education programs by electronic means. If remedial education in higher education is to exist at all, it is argued, it should be located in the lower levels of the higher educational system, in particular in the two-year junior and community colleges of our nation that are best situated to serve remedial students. Learning communities: An alternative approach to developmental education The merits of this view aside, it is the case that much of the criticism of remedial education springs from the high costs and limited success of past efforts to assist developmental education students - efforts which have typically served to isolate,