Learning Better Together:

The Impact of Learning Communities on the Persistence of Low-Income Students

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Abstract

This article describes the major findings from a longitudinal study of the impact of learning communities on the success of academically under-prepared, low-income students in 13 community colleges across the country. In this study, we employed both quantitative longitudinal survey and qualitative case study and interview methods. We utilized the former in order to ascertain to what degree participation in a learning community enhanced student success and the latter to understand why and how it is that such communities do so. The findings strongly support adapting the learning community model to basic skills instruction to improve learning and persistence for this population.

Introduction

On the surface, America's public commitment to provide access to any individual who seeks a postsecondary education seems to be working. Our higher educational system has one of the highest participation rates in the world. More than 16 million students are currently enrolled in U.S. public and private two- and four-year colleges, an increase of more than 25 percent in the past 20 years. The proportion of high school graduates entering college immediately after high school has increased from about 49 percent in 1980 to 67 percent in 2004. As overall enrollments have grown, so too have the number of economically disadvantaged students who attend college (National Center for Education Statistics (NCES), (2005a)

But scratch the surface of this apparent achievement and the news about access and opportunity in American higher education is much more complex and a lot less hopeful. Despite gains in access generally, marked economic stratification in patterns of access and participation remain. For too many students, especially those from low-income families, the door to higher education is only partially open because financial and other constraints limit not only where but also how they attend college.

This is most noticeable in shifting patterns of attendance at two- versus four-year institutions. In 1973–74, the first year of the Pell Grant program, 62 percent of Pell Grant recipients were enrolled in four-year colleges and universities. By 2001–02, the proportion of Pell Grant recipients enrolled in four-year colleges and universities had shrunk to 45 percent, a relative decline of 28 percent (Mortenson, 2003).[2] Strikingly, the shift from four-year to two-year colleges among Pell Grant recipients has been most dramatic since the late 1990s. Between 1998-99 and 2001-02, the share of Pell Grant recipients enrolled in four-

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year institutions dropped from 50 to 45 percent, where it remains today (Mortenson, 2003; U.S. Department of Education, 2006). In other words, nearly 28 percent of the 30-year decline in enrollment in four-year institutions among Pell Grant recipients occurred in just a recent three-year period. Notably, this period has coincided with economic recession, large job losses, state cutbacks in financial support for higher education, large tuition increases, and frozen Pell Grant maximum awards (St. John, 2002, 2005).[3]

Understandably, some, if not a substantial portion of differential participation can be attributed to well-documented differences in levels of academic preparation between low- and high-income students[4], as well as the impact of recent policies that have restricted access to four-year institutions for students who have substantial academic needs. There is little question that academic preparation matters and that differences in preparation continue to pose daunting challenges to promoting greater equality in patterns of access (Bowen, Kurzweil, & Tobin, 2005). But even among students with similar levels of academic "resources," low socioeconomic students are less likely to attend four-year institutions than students from high socioeconomic backgrounds (Cabrera, Burkum, & La Nasa, 2005). Economic stratification can also be observed in forms of participation. Students from low-income families are considerably less likely to attend college full-time than are students from higher-income families and more likely to work full-time while attending college. For example, among students who began college in the 1995–96 academic year, 57 percent of dependent students from families earning less than $25,000 were enrolled in college full-time for the entire academic year compared to 71 percent of those from families with incomes of more than $75,000 (NCES, 1999).

Why does such stratification matter? It matters because where and how one goes to college influences the likelihood of college completion.[5] Although gaps in overall access have decreased over time (NCES, 2007), gaps between high- and low-income students in college completion generally, and in the completion of four-year degrees in particular, remain. Indeed, they appear to have widened somewhat in recent years (NCES, 2005b).

This trend reflects in large measure the fact that a greater proportion of low-income youth are entering two-year rather than four-year colleges and, in so doing, reducing their likelihood of earning four-year degrees. Consider the data from a six-year national longitudinal study of students who began college in 1995–96: Whereas nearly 6 in 10 four-year college entrants earned a bachelor's degree within six years, only a little more than 1 in 10 public two-year college entrants did so (NCES, 2003). But even among those who began higher education in a two-year college, income matters. While nearly 25 percent of high-income students who began in a two-year college earned four-year degrees within six years, only 8 percent of low-income students did so (NCES, 2003). Although some of the difference can be explained by variations in academic preparation and educational aspirations, it is still the case that students from lower socioeconomic backgrounds with similar levels of preparation are less likely to transfer to four-year institutions (Dougherty & Kienzl, 2006).

The facts are unavoidable. Although access to higher education has increased, greater equality in the attainment of four-year college degrees has not followed suit. For too many low-income students, the promise of a bachelor's degree is still unfulfilled in large measure because they are increasingly entering two-year colleges and often do so without the requisite academic skills to succeed. The open door of American higher education has been a revolving door for too many low-income students.

What is to be done? There is no "magic bullet." That being said, it is clear that no long-term solution is possible until we find a way to address the

[2] The shift of low-income students from four-year to two-year colleges has occurred among both dependent (typically 18–24 years old) and independent students (typically 24 years and over). The percentage of dependent low-income undergraduates with Pell Grants enrolled in four-year institutions declined from a peak of 69 percent in 1980–81 to about 58 percent by 2001-02. The share of independent undergraduates with Pell Grants enrolled in four-year institutions has declined from 49 percent in 1977–78 to 35 percent in 2001–02 (Mortenson, 2003).

[3] For a more detailed analysis of the impact of Pell Grants and other tuition assistance programs see Kane (2003, 2004).

[4] According to Cabrera et al (2005) only seven percent of students from high socioeconomic status backgrounds begin college with "low academic resources" whereas 22 percent of students from low-socioeconomic status backgrounds do so.

[5] Understandably it also impacts the economic returns to one's investment in higher education (Long, 2004). The net effect is that stratification in participation also shapes the future social attainment of different groups of students.

academic needs of under-prepared low-income students who are increasingly enrolling in two-year colleges. Unless low-income students are able to succeed in these "colleges of opportunity" as they are often called, there is little chance they will be able to transfer and eventually attain bachelor's degrees. Unfortunately, the evidence suggests that community colleges have thus far not been very successful in addressing the issue of basic skills (see Bailey, Jenkins, & Leinbach, 2005).[6] This problem reflects not only a lack of resources at two-year institutions, but also a paucity of models of effective programs that can be utilized in the community college context. Consequently, a good deal of attention is now being paid not only to the restructuring of existing programs but also the development of new, innovative efforts that demonstrate potential for addressing the academic preparation needs of low-income community college students. One particularly promising effort we explore here is the adaptation of learning communities for students taking required non-credit bearing basic skills classes.

This article describes the major findings from a systematic, multi-institution, longitudinal study of the impact of learning communities on the success of academically under-prepared, predominantly low-income students in 13 two-year colleges across the country. In this study, funded with a grant from the Lumina Foundation for Education and with additional support from the William and Flora Hewlett Foundation, we employed both quantitative longitudinal survey and qualitative case study and interview methods. We utilized the former in order to ascertain to what degree, if at all, participation in a learning community enhanced student success and the latter to shed light on why it is that such communities enhance student success, should they do so. These distinct methodologies were employed in parallel so as to produce a fuller, richer, and more complex picture not only of the success of students in those communities, but also of the experiences that help shape that success.

Figure 1. Participating Two-Year Institutions

Camden College
Cerritos College
Community College of Baltimore County
DeAnza College
Grossmont College
Holyoke Community College,
LaGuardia Community College
San Jose City College
Sandhills Community College
Santa Fe Community College
Seattle Central Community College
Shoreline Community College
Spokane Falls Community College

The Learning Community Model: An Overview

In their most basic form, learning communities begin with a kind of co-registration or block scheduling that enables students to take courses together. In some cases, learning communities link two courses together, such as a course in writing with a content course such as Sociology or History. In other cases, the entire first-semester curriculum is the same for all students in the learning community. Under this type of arrangement, students might take all of their classes together either as separate but linked classes, as they do at DeAnza College in California, or as one large class that meets four to six hours at a time several times a week, as they do in the Coordinated Studies Program at Seattle Central Community College.

The courses in which students co-register are not coincidental or random. They are typically connected by an organizing theme or problem, which gives meaning to their linkage. The point of doing so is to engender a coherent interdisciplinary or cross-subject learning that enables students to apply what is being learned in one course to what is being learned in another. At the same time, many learning communities change the manner in which students experience the curriculum and the way they are taught. Faculty members have reorganized their syllabi and their classrooms to promote shared, collaborative learning experiences among students within and across the linked classrooms. This form of classroom organization

[6] Many descriptors are used in the literature and on college campuses to label non-credit earning courses in math, reading, or writing. Throughout this article we will refer to these courses as "basic skills" courses because other terms such as remedial and developmental suggest deficits in the individual student rather than the absence of sufficient skills to succeed in college.

requires students to work together and to become active, indeed responsible, for their own learning as well as their peers.

As a curricular structure, learning communities can be applied to any content and any group of students. For students who enter college academically under-prepared, as do many low-income students, one or more courses may involve basic skills. For instance, students in the Business Academy at LaGuardia Community College take a three-credit Introduction to Business course with a non-credit English course and a credit-bearing freshman seminar. In other cases, a basic skills course in Writing is linked to a content course such as U.S. History. However organized, the linking of basic skills courses to content courses enables faculty to tailor academic support in basic skills courses to the specific learning needs of students in their other content courses. Many learning communities also bring together faculty, student affairs professionals, and other staff charged with addressing the academic needs of new and continuing students (e.g. learning center staff). In this manner, learning communities are able to attain a higher level of alignment with support services than is typically possible when various services operate independently of one another.

Learning communities are not new. Over the past two decades they have been adopted with varying degrees of success in over several hundred four- and two-year colleges (Gablenick, MacGregor, & Smith, 1990). Indeed, they have been cited by a number of foundations and educational organizations as one of several effective practices that improve student engagement (Zhao & Kuh, 2004), learning, and persistence. Even *U.S. News and World Report* now includes a ranking of institutions that have learning communities in their annual college rankings issue.

While a number of community colleges have adapted learning communities to serve the needs of academically under-prepared students (Malnarich, 2004), evidence of their effectiveness has been scarce. An earlier study funded by the U.S. Department of Education (Tinto, Goodsell, and Russo, 1993) found that at least one learning community, the New Student House program at LaGuardia Community College, had evidence to support its claim of having been successful in helping low-income, academically under-prepared students. However, there has been no large-scale study to test the effectiveness of learning communities with this population in the two-year context prior to this study.

Study Design

We carried out a systematic, multi-institution, longitudinal study of the impact of learning communities on the success of academically under-prepared, predominantly low-income students in 13 two-year colleges.[7] In this study, we employed both quantitative longitudinal survey and qualitative case study and interview methods. We utilized the former in order to ascertain to what degree, if at all, participation in a learning community enhanced student success, and the latter to shed light on why or how learning communities enhance student success, should they be found to do so.

Our selection of institutions, and therefore the learning community programs studied, was driven by several considerations. First, the institutions had to have a learning community program of some duration for which there was institutional evidence to support the claim that the program was effective for academically under-prepared students. We were specifically interested in learning communities that situate basic skill development within a broader academic context, rather than merely linking several skills courses (Grubb, 1999). Second, the set of selected programs had to capture the significant variations in how learning communities are being adapted to serve the needs of basic skills students in order for us to ascertain whether some types of programs are more effective than others. Third, the set of institutions had to reflect the full spectrum of the "at-risk" population, including low-income, minority, first-generation, and immigrant students.

The institutions were selected through a multi-stage nomination, application, and screening process conducted with the assistance of a project advisory board, whose members represent many of the most knowledgeable and experienced educators in the field. While by no means a nationally representative sample of all learning community programs that serve academically under-prepared students, the 13 institutions selected for this study capture significant and policy-relevant variations in program location, type, and population served.

[7] The findings presented here are part of a larger study that also examined the impact of learning communities in six four-year colleges.

Quantitative Methods

Quantitative methods were used to ascertain the impact of participation in a learning community on (1) student behaviors known to be associated with learning and persistence (often referred to as engagement) and (2) student persistence to the next year of college. Specifically, we employed longitudinal survey analysis in a panel design that required the development of a survey instrument as well as the identification of program and comparison groups and the collection of survey data and subsequent follow-up data on persistence from each institution.

We used a modified version of the widely-used Community College Survey of Student Engagement (CCSSE) survey. We adapted the survey to capture more detailed information about the impact of certain activities we expect to observe in learning communities based on prior research, such as active-learning pedagogies and peer learning. In addition to collecting basic demographic information, the survey asked a range of questions about students' involvement in classroom activities, with classmates, and faculty; their perceptions of the support and encouragement they experienced on campus; and their evaluation of their own intellectual gains over time. Students' responses were collapsed into a series of factor scores for comparing group means, which were collapsed into a single score for regression analysis. Each factor has been shown in prior research to be independently related to both student learning and persistence (Pascarella & Terenzini, 2005). A draft version of the survey was pilot tested at a local community college and revised with the assistance of the advisory board.

On each campus, we selected two groups of students, those who participated in learning communities during their first year of college and a comparison sample of similar students who did not. To select the comparison group students, we asked each institutional contact person to identify courses that were similar in content to those that were part of the learning communities and that enrolled students who were similar in their attributes and level of academic preparation to those enrolled in the learning communities. All students in the courses so identified comprised the comparison student population.[8] [9]

Students in both learning community and comparison group classrooms were surveyed in Fall 2003 during their first year in college. Out of 6,459 students, we obtained completed questionnaires from 3,907 students, (1,626 in learning communities and 2,281 in comparison classrooms) for a total response rate of 61 percent. We used the Enrollment Search services of the National Student Clearinghouse (NSC) to track all survey respondents to the following academic year to ascertain if and/or where they were enrolled at any institution in the country.

The data were analyzed using both univariate (means, frequencies, and chi-squares) and multivariate regression techniques in order to (1) ascertain to what degree learning community and comparison group students differed in their patterns of educational engagement and subsequent persistence and (2) whether participation in the basic skills learning communities was independently associated with subsequent persistence. In the latter case, we employed multivariate logistic regression analyses to identify to what degree and in what manner experiences during program participation were related to subsequent educational outcomes including persistence and degree completion (Menard, 2001). Logistic regression is ideally suited to model the effect of independent variables when the dependent variable under consideration is dichotomous (e.g. did or did not persist). Logistic regression not only captures the problematic distribution embedded in dichotomous measures, it also avoids violations to the assumption of homogeneity of variance and functional specification the direct application of Ordinary Least Squares regression models are likely to produce (Cabrera, 1994). SPSS statistical software was utilized in all analyses.

[8] Although it might be claimed that that our sample is not representative, since we did not employ random sampling procedures, experience has taught us that classroom-based sampling not only results in higher response rates, but, in the final analysis, also yields a more representative sample. Random sampling techniques typically entail use of the mail and therefore are subject to high non-response rates and non-random response patterns.

[9] It should be noted that in some cases all academically under-prepared students were enrolled in the institution's learning communities. As such, comparison group students were necessarily somewhat better academically prepared and from somewhat more advantaged socio-economic backgrounds than were students in the learning communities. This, as we shall see later, served to reinforce some of the findings of the study.

Table 1. Race/Ethnicity of Interview Participants (with Three or More Interviews)

Race/Ethnicity	Total Number	Percent of Total
African American/ African	3	6%
Asian/Pacific Islander	19	39%
Latino/Hispanic	13	27%
Middle Eastern	1	2%
Multi-Ethnic	5	10%
Native American	1	2%
Unknown	1	2%
White/European	6	12%
Total	**49**	**100%**

Qualitative Methods

Qualitative case study and interview methods were used to examine what features of the learning community experience contribute to students' success both at the time of participation and over time. Three institutions from our sample were selected for case study analysis, Cerritos College (California), DeAnza College (California), and LaGuardia Community College (New York). These institutions were selected because they (1) offered a variety of well-established, campus-supported learning community offerings and models to students needing basic skills classes; (2) were based on interdisciplinary, team-taught, collaborative learning practices; (3) served first-generation, working-class students from diverse backgrounds; and (4) provided on-going faculty development. Each institution was also selected because it offered some learning community models and practices unique from the others.

A team of two researchers visited each institution to initially observe the programs and to interview a range of people on campus, including students, staff, and faculty, to better understand the philosophy, goals, and organizational structures supporting the range of learning community offerings on these campuses. We conducted the first set of interviews with a diverse group of learning community students at the end of the Fall 2003 term or the beginning of the Spring 2004 term. In the first round of interviews, students could choose to participate in focus groups or individual interviews. In the next round, we individually interviewed these same students at the end of the 2003–2004 academic year. We continued to interview students three or more times over the next two and a half years; we concluded with focus groups with all students who had participated in two or more interviews during the study. During the first three years, we interviewed 165 students from the three institutions, with 49 students participating in three or more interviews. Overall, we conducted 266 individual interviews and 20 focus groups over three years. A breakdown of the ethnic/racial diversity of the 49 students who participated in three or more interviews can be found in Table 1.

The purpose of the student interviews at the case study institutions was to learn more about students' experiences in these programs and whether and how their participation affected their success in college. The interviews focused on two major questions:

1. How do students reflect upon the role and influence of the learning community experience throughout their college enrollment? Specifically, how does learning community participation affect these students' identities as learners, in terms of habits, attitudes, and knowledge, and how does this in turn affect their chances of college success?
2. What obstacles do students identify as having faced while enrolled in college, how did they negotiate these experiences, and what role did their learning community experience play in overcoming these obstacles (if they were able to do so), particularly in relation to other institutional or external factors?

There are a number of studies in the literature that examine the influence of learning communities on student success using qualitative data about students' perceptions either during or immediately following the learning community experience. This study is unique in that we asked students to continually reflect about the influence of the program on their persistence over time.

Study Findings

Quantitative Findings

In terms of demographics, students enrolled in the learning communities and the comparison classrooms were generally quite similar, although students in the learning communities were somewhat more likely to come from minority

Table 2. Attributes of Learning Community and Comparison Group Students

Student Attributes	Learning Community	Comparison Group
Age[a]	**3.05**	3.23
Gender (% Female)	**65%**	61%
Highest Level of Father's Education[b]	4.17	4.20
Highest Level of Mother's Education	3.86	3.88
Highest Educational Credential[c]	1.19	1.22
U.S. Citizenship (% U.S. Citizen)	82%	83%
English as Native Language	67%	69%
Ethnicity (% Non-White)	**63%**	59%

Bold denotes significant differences at the .01 level

[a] Age: 1=17 or younger, 2=18, 3=19-22, 4=23-25, 5=26-29, 6=30-39, 7=40-49, 8=50-59, 9=60 plus

[b] Parental Education Level: 1=None, 2=HS diploma/GED, 3=Vocational or trade school, 4=Some college, 5=Associate degree, 6=Bachelor's degree, 7=Master's degree/1st professional, 8=Doctorate degree, 9=Unknown

[c] Own Educational Level: 1=None, 2=HS diploma, 3=GED, 4=Vocational or trade school, 5=Associate degree, 6=Bachelor's degree, 7=Master's degree/1st Professional/Doctorate degree, 8=Other

Table 3. Engagement Among Learning Community and Comparison Group Students

Factor Scores	Learning Community	Comparison Group
Engagement in Classrooms[a]	3.32*	3.15
Engagement with Classmates[a]	2.85*	2.68
Engagement with Faculty[a]	2.88*	2.75
Perceived Encouragement[b]	2.91*	2.73
Perceived Support[b]	2.51	2.44
Perceived Intellectual Gains[b]	2.83*	2.70

[a] Scoring ranges from 1=Never to 5=Very Often

[b] Scoring ranges from 1=Very little to 4=Very much

* Indicates significant difference at the .05 level

backgrounds, to be younger, and to be female than comparison group students (see Table 2).

Table 3 shows that students in the learning communities were significantly more engaged than students in the comparison groups along all measures of engagement (classroom, classmates, and faculty), were significantly more positive in their perceptions of the encouragement they experienced on campus, and significantly more positive in their estimation of their intellectual gains.

Given their higher levels of engagement, it is not surprising that students in the learning communities were also significantly more likely to persist from freshman to sophomore year than comparison group students, 62 to 57 percent respectively ($p < .05$).

To test whether participation in a learning community was independently associated with increased persistence, we employed multivariate logistic regression analysis. First, we regressed student demographics on persistence, and then added a variable indicating whether or not students participated in a learning community. Finally, we regressed student demographics, participation in a learning community, and engagement on student persistence. It should be noted that in the final regression we combined the separate factor scores on engagement (classrooms, classmates, and faculty) into one score on overall engagement. These results are presented in Table 4.

Several findings are evident. First, age and citizenship matter. Specifically, older students and non-U.S. citizens have lower persistence rates than do younger students and those who are U.S. citizens. Second, participation in a learning community proves to be independently associated with persistence even after controlling for student demographics and engagement.

Third, once one takes being in a learning community into account, differences in engagement are not significantly associated with persistence. This latter finding is telling because it indicates that the impact of participation in a learning community on persistence is not taken up by the fact that students are more engaged in those communities. Rather it suggests that there is something specific about being in a learning community that promotes the persistence of academically under-prepared community college students.

To understand what it is about these learning communities that may explain their impact upon persistence we now turn to the qualitative data.

Table 4. Results of Multivariate Regressions on Persistence Among Learning Community and Comparison Group Students

Variable	Beta	Beta	Beta
Highest Education Credential	-.006	-.006	-.006
Mother's Education Level	.028	.028	.028
Age	-.078**	-.075**	-.076**
Gender (% Female)	.114	.107	.107
English as Native Language	.062	.055	.056
U.S. Citizenship	.517**	.524**	.522**
Ethnicity (% Non-White)	.104	.114	.117
Learning Community Participant		.217**	.212**
Engagement			.031

** Indicates a significant relationship at the .001 level.

Qualitative Findings

Based on our interviews at the three case study institutions—Cerritos College, DeAnza College, and LaGuardia Community College—we were able to identify important elements of the learning community experience that students perceive as critical to promoting their learning and success in college. First and foremost, students found that learning communities provided a safe and supportive environment in which to learn. This did not merely "happen" because students were co-enrolled in the same courses, however. As we will discuss here, we found that learning community faculty employed four key strategies to create a true "community of learners:" (1) using active and collaborative pedagogies that engaged students with their peers; (2) collaborating with other faculty to develop an integrated, coherent curriculum; (3) integrating campus services and programs into the learning community experience; and perhaps most important, (4) developing personal connections and relationships with students in which they encouraged students to meet high expectations while offering them high levels of support. Finally, students reported that participating in a basic skills learning community was not a "remedial" experience at all; rather it was the foundation or the building blocks for their success in the first year of college and beyond.

The Learning Community Environment: A Safe and Supportive Place to Learn

Many of the students in our study did not enter college feeling "safe" to learn. They were often afraid to speak in class and to participate fully in the learning process. According to students in our study who were born in the United States, their prior high school experiences seemed irrelevant and left them feeling disconnected, invalidated as knowers, and lacking any motivation to learn or excel. They consistently said that high school was a waste of time, they learned little from the lecture mode of class delivery, and spent few hours (if any) studying. Quite simply, they were not engaged in the academic environment. However, participating in a learning community improved these students' confidence in their abilities to learn as well as their motivation to succeed by creating a safe, supportive learning space. As Audrey, a participant in the DeAnza College Language Arts (LART) learning community explained:

> *When I came to college, I didn't know who exactly I was, and how do I feel, and what do I like. And before I was afraid of saying what I thought or what my feelings were, now I'm not afraid. I am like "I think this."*

Diana said that the Business Academy at LaGuardia Community College "has benefited me because I have gotten to know people. I am not alone anymore. It has helped me feel more comfortable, more confident. The more confident I feel, the better I do." Tasha at Cerritos College shared, "I think I have gotten smarter since I have been here. I can feel it."

For the immigrant students in our study, their lack of confidence in their academic abilities and lack of participation in the classroom was directly tied to their ability to speak, read, and write in English. Even if they did well in school in their

native country, their identity as college students in the U.S. was primarily shaped through their perceived competence in the English language. Learning communities provided a safe environment for these students to gain the confidence they needed to improve their language skills, thereby allowing them to participate more fully in their classes. Song, a participant in the linked ESL courses at LaGuardia Community College, explained:

First of all, when I came here I was so scared. I was afraid of everything because of language. Now I am not afraid. We won't be scared to raise our hands, even if it sounds stupid because we know each other so it's not that stupid.

Cecelia, another LaGuardia ESL student, shared, "Now, I can write. I can speak. I speak more. I understand more. I feel more confident and before I was ashamed. Now I feel really good." Christopher from LaGuardia Community College added:

Being in the same classes, it's comforting. You are scared and maybe somebody speaks much better than you and writes better so you feel more comfortable seeing the same faces everyday and you communicate more and more often, little by little. Now I have different friends, different faces every class but I got the confidence from seeing the same faces in the first cluster. I'm not afraid of saying anything now, but I was.

Students felt that the learning community environment was a safe place to learn because they got to know one another, they trusted and respected each other, which allowed them to take risks and to participate and learn with each other. Issac, another DeAnza College LART participant, said, "This class is more of a family, a small family. You go into the class and you're like, 'Oh, Joe's not here. I hope everything is okay.' It's a close-knit classroom. We were really able to share experiences, and I think it improved me a lot." Sue from Cerritos College agreed:

Before I took the linked course, I always communicated with the teacher. Now you spend so much more time with your classmates, and we are sort of a community. In this environment you become more confident, you become more alive, you become more responsible for your own opinions and you aren't afraid to speak your views, you aren't afraid to speak up.

Clearly, students found the linked classes fostered a sense of community that helped them overcome their fears and encouraged them to get engaged and active in class. This was very different from their experiences in their other courses. At DeAnza College, Robert explained: "In LART, it's more friendly. We just trust each other more. We're more glad to see each other." Tiffany from DeAnza shared:

In my math class, usually I just do my own work and there is no friendship involved in math class and outside of class. I won't say "hi" to my math classmates, but in my LinC class, I will talk to them and say "hi" because we are closer to each other and this is important to learn. You don't want to always feel alone and you always want someone who knows you and you can get more help. In my math class, if I have a problem, I will go first and ask the instructor. I will not ask my classmates because I don't know them. But in the LinC class, I will discuss my problems or questions with my classmates.

The safe, supportive learning environment that students describe as present in the learning communities did not just "happen" because they moved from one class to another with each other. It was purposefully created by learning community faculty who employed the following four strategies to create a "community of learners" among students enrolled in basic skills courses at the case study institutions.

Using Active and Collaborative Learning Strategies

Learning community faculty employed active and collaborative pedagogies that fostered relationships among students, which made them more confident about and engaged in their learning both inside and outside of the classroom. Faculty use of collaborative learning strategies, such as group discussions and assignments, allowed students to feel more secure with themselves as learners and to recognize the value of their own and others' contributions to the learning process. Jasmine, a student from DeAnza College, reflected:

I remember sitting in my English class for LART three years ago. I didn't know anybody at all. I didn't know what to expect and one thing that my teachers taught me very early is to value knowledge and don't be afraid to speak. They were very

interested to hear my opinions, what I had to bring and at that time I wasn't used to it that much. So, I was very hesitant, but you know, as the year passed by, I noticed that it's very important to just speak up and hear other people's opinions. They combine individual work as well as group work because they want to hear from different people and they want the students engaged as well. It makes the class more interesting.

During group exercises, students describe how working with their peers also promoted deeper, more meaningful interactions with and greater understanding of the course material. Attila, another student from DeAnza College, said:

Instead of them (faculty) making a point, like reading a story or an essay, they don't just tell you the point of the essay. They start asking questions and they make you think and find out on your own, but with your classmates. They are not going to say to you "This is the point of this class" you know, like a lecture class, "This is how you have to do it." No, they are going to make you work for it, you have to find out. And by the time you find out you actually know it and you're not going to forget it.

By using active and collaborative learning strategies, learning community faculty encouraged students to take more responsibility for and ownership of the teaching and learning that took place in the classroom, which not only validated them as learners but improved their learning outcomes as well.

Students' learning together extended beyond the classroom in the form of study groups. Learning community faculty were instrumental in encouraging students to form study groups and teaching them how to set them up and run them. Mack at Cerritos College explained about the direction he got from faculty to establish peer study groups:

The learning community program, they give you an opportunity to work more with your classmates where in other classes you don't get that chance. In my LC English class, they always want you to get into study groups, but in other classes they don't promote making you do it. Once you know how to do it, you get comfortable and you just continue on initiating study groups in other classes even if the professor won't. In learning communities they say you have to go meet with people outside of class.

Participating in the learning community facilitated the scheduling of study groups since students were in all the same classes together and had similar breaks in the day. As Veronika from the Business Academy at LaGuardia also said, "Yeah, we are all friends now because we do all these projects together and interact with each other. We take all three classes together so we all go together, we eat together, we talk about homework together, we study together."

Students found that the study groups were a safe and supportive environment where they could ask for help from peers without fear of criticism from each other or faculty. Marie from DeAnza College explained:

In the LART class, you used group members to improve your skills; it is a little harsh to get criticism from the teacher as opposed to your peers. So we had our peers look over our papers first which is really cool.

Pedro from Cerritos College said, "Right now, half of us are struggling in math class so we try to form a study group and then we go to the same tutor. And whoever understands the problem better, we try to help each other out."

Students also found that the study groups provided a serious atmosphere for learning where they and their peers kept each other motivated, focused, and on task in their studies. Stan at DeAnza College described:

There are a lot more people in my LinC that are more serious behind what they're doing. So, I mean, that helps out as far as your learning environment. You can set up study groups and everybody there can get stuff accomplished.

Stan went on to say that this was much different than his experience in high school. "As far as high school, none of that. Its like, soon as that bell rung, I was out of there. And you don't want to think about class at all. That isn't the case here." Max, another student at DeAnza College, said:

We motivate each other and we keep each other on track. Cherry and I are in these classes together so we usually are doing our homework together. We have discussions with ourselves, sometimes heated discussions on a lot of different topics. When we get back to class we know what we want to talk about, ask about, what we want to present. So it

helps to get friends to help you with essays, readings, discussion topics.

Students who participated in study groups in the learning communities often formed study groups in other classes with or without faculty support. Maria, an ESL student at DeAnza College described how, two years after participating in a learning community, she worked with her peers in her nursing program to provide much needed support to each other:

We survived second quarter, and then third quarter it became much, much worse, and people just started to disappear from our program. We thought "Okay, what can we do?" Because we have to survive, so if nobody cares about us, we have to care about ourselves somehow. So this is how we came up with the idea of the website. Everyone takes turns typing up the lecture, so everyone can use it, and you can put your own notes. We have five people with tape recorders, and some of the girls have very good writing skills, and will write the lecture, scan it, and give it to our group. We put it on the website. And if somebody has some information about the code for the supply room, or where to find syringes you put the information on this website, and we print it and have a hard copy to put in our binders and take it with you. When you have some support group, it's much more helpful.

Maria said that she gained an appreciation of the benefits of learning together with her peers in her ESL learning community experience.

Students' experiences with study groups demonstrate how learning among peers continued outside of the classroom because the collaborative learning pedagogies used by faculty inside the learning community classroom led to meaningful relationships among peers. These relationships helped to create a safe and supportive learning environment in which students developed more confidence in themselves as learners and in their contributions to the learning process, thereby increasing their engagement in the classroom and with the curriculum.

Developing an Integrated, Coherent Curriculum

Collaboration between learning community faculty led to the development of an integrated, coherent curriculum that encouraged students to acquire metacognitive knowledge about their identity as learners, the conditions under which they best learn, and their role in the learning process, thereby allowing them to more deeply learn the course material.

Learning community faculty colleagues developed an integrated curricular experience by working together to find interdisciplinary links in the course content and to coordinate assignments and activities so they complemented and built upon each other in order to increase students' learning outcomes across courses. Stephanie, a participant in the New House at Cerritos College explained:

It's great because the teachers and the material—they are connected. The teachers work together for us. For example, in basic writing, we write about something, let's say culture. In basic reading, we're reading about cultures too. In our communications or speech class we are making presentations about different cultures. It's good for us to have these connections because we are learning more.

Pedro from the Business Academy at LaGuardia Community College added, "The English teacher gave us an essay title related to business class. So I am thinking about business all the time. All the projects are connecting. We apply, for example, what we discussed in business ethics in an essay [for English]." Students emphasized the benefits of curricular links between reading and writing courses in particular. As Attila from DeAnza College commented, "If you write you have to read something to write about. They just go hand and hand."

As these students explain, the linked learning community courses made learning easier and more efficient, thus enabling them to learn more, because they spent more time focused on the course material and the information and skills learned in one course were reinforced in their other courses. The curricular links between the courses also made the material being presented seem more relevant, which increased students' interest in the subject matter, and as a result, their motivation to study and learn. As Cecile from LaGuardia shared:

The relationship in classes between accounting and ESL is helping a lot because the accounting professor is teaching us to answer questions in complete sentences—to write better. And we are more motivated to learn vocabulary because it is accounting vocabulary—something we want to learn

about. I am learning accounting better by learning the accounting language.

Stephen and John, both from DeAnza College, eloquently summarized their experience with a coherent, integrated curriculum in the learning community setting. Stephen shared:

LART is like a big puzzle. Every day, they give us piece by piece and by the end it all connects together. The teachers have us figure out how to put it together.

John agreed: "The classes are intertwined, like two colors joined into one; they just come together nicely. I actually think that other people who have their classes split up as opposed to us are missing out and not learning as much as we are."

An integrated curriculum not only improved students' learning experience and outcomes, but also promoted an understanding about themselves as learners and their role in the learning process. Faculty taught this lesson by modeling dynamic teacher-learning roles as instructors in the learning communities.

Students appreciated how faculty worked together to make the curricular links between the courses in the learning communities. These partnerships led to faculty moving seamlessly from teacher to "student" roles, modeling to students that faculty too have much to learn from each other and from students. John, a student at DeAnza College, commented on how the learning community model enabled faculty to learn alongside students:

You really saw the classes were linked because the other teacher would sit in on the other teacher's class on her off day, and she would not sit there as a teacher, she would sit there as a student. She would take the opportunity to learn. It was very nice, like we were just there to learn, so it made for a nice learning atmosphere. It wasn't like we had two teachers at that time, one of the teachers was a student with us. So you really felt like they weren't talking down to you or at you, they were talking with you.

Alex at Cerritos College shared a similar view about the importance of faculty expressing an openness to learn: "If we challenge the math teacher, he always wants to be right. He won't let us talk. The learning community faculty say, "We are wrong. Tell us how we are wrong and how can we learn from you." Jose, another student at Cerritos, explained about how faculty team teaching made him feel "less dumb:"

You are focusing on two opinions, two thoughts (with team teaching). You are not bored. You are more focused. It's kind of fun. They tell you about their opinions, they want your opinion. They learn from us and we learn from them. They make everyone feel as if they are just as smart as everyone else. No one is dumber than anyone else.

Students valued observing faculty moving fluidly between teacher-learner roles. This modeling sent messages to students that they too can move from expert to learner depending upon their own knowledge and expertise. In addition, faculty who took on the "learner" role sent a powerful message to students that "it is okay" to ask questions, to seek out knowledge, and to take risks in the classroom, which made students feel like they belonged there. In this way, faculty created a comfortable yet challenging learning environment, a genuine community of scholars.

Integrating Campus Support Services

By integrating campus services and programs into the learning community experience, faculty were able to connect students to networks of support throughout the campus community, thereby increasing their chances of success in the first year and beyond.

The learning communities provided a conduit to an array of campus support services, often through a new student seminar offered in conjunction with students' other classes. The House A and B learning community programs at Cerritos College, for example, offered a credit-bearing new student seminar course called Career and Guidance linked to basic skills math, reading, and writing courses. By connecting students with campus support services and helping them interact with campus offices, such as financial aid and registration, the faculty and counselors in the first-year seminars were actually helping students learn "how college works," which they did not know given the lack of college-going experience in their families and communities. Maria from Cerritos explained:

We don't know how college works. We don't know the difference between grants, loans, scholarships and all that stuff. Also, we don't know the credits, the grades, the letter grades, and GPA—how all that

works. The class [Career and Guidance] is good for letting you know all that.

Pedro had a similar experience in the new student seminar at LaGuardia Community College: "[They] tell you what you need to know, step-by-step, and that's a good thing." Another student, Tony at LaGuardia, who wasn't actually taking the seminar, nonetheless benefited from the information he learned from his friend, who was enrolled: "We really don't know where to go for help so we ask our friend for advice. In the seminar, they teach him what courses to take."

The new student seminars clearly helped students develop some of the social and cultural capital required to understand and navigate the college system. The seminars also helped students develop strategies, including critical time management and study skills, and tap into a web of resources, such as tutoring, that further supported their success on campus.

Students talked about how the endless "distractions" they faced trying to combine going to college with their work and family responsibilities caused them to struggle with time management and organization of their studies. The new student seminars helped students address these issues by providing them with resources to better understand their own learning styles and processes as well as how to manage their time and learning priorities. Elizabeth from Cerritos College shared:

I learned that I was a visual person. You know, it's like that's why I didn't like school the first time around 'cause everything you had to read. The learning community, they taught us what is the best way you learn and for me it was visual. I also learned time management. I'm a mother and I'm a student and I work part-time too, so it was so funny how the math teacher always told us for every hour you're here, you have to study two hours and it's like are you crazy? But it's true; they taught us how to prioritize.

The first-year seminars also connected students with resources on campus, such as tutoring, that helped them better develop their time management and study skills. Learning community faculty often incorporated tutoring into their students' weekly schedules and routines. In fact, students at both LaGuardia and Cerritos described going to tutoring up to four and five times as week, even after they were no longer participating in the learning community. Mack, a student at Cerritos College, described:

I always go to math tutoring. I get as much help as I can. At 11 o'clock I've got English tutoring. For an hour we go over our papers and support each other, critique papers we've written, and it gives you a chance to get a different perspective on your ideas and what you've written.

Tutoring not only enhanced students' understanding of the required course material, but also kept them on campus, immersed in their college pursuits and participating in the college community.

By integrating campus services and programs into the learning community experience, faculty were able to reinforce critical habits and skills essential to students' success, to engage students more fully in their studies, and to connect them with networks of support on campus.

Holding Students to High Expectations While Providing High Levels of Support

Through their efforts to engage students in the learning process, learning community faculty not only let students know that they had high expectations for them, but that they would provide them with the encouragement and support necessary to help them meet these expectations. In other words, by caring so much about students' learning in the classroom, the students felt that the instructors cared about them. As Danielle, a student a Cerritos College shared:

It is amazing the impact these teachers in the learning community have on students because you have teachers that want to learn from you and they want to talk to you about how you're learning and how you are developing. They just want to show that they really care, like it's sincere and it's not just something to do for a paycheck. It means a lot more and makes you want to view life differently, It makes you want to view life positively because teachers actually care about you. You are like "wow!"

Cecila, an ESL student at LaGuardia, agreed when she said that the faculty "work so hard for our benefit and it makes me feel good to know the teachers care. They are really into your work. They want to make sure you do it because they are concerned that we succeed. There are a lot of people giving us reassurance all the time."

For some students, like Judy at Cerritos College, the care and concern of the learning community faculty was unexpected, but much appreciated:

> *I thought college would be really cold. When I took the First Year Experience, I even had two teachers call me at my house when I wasn't showing up for a week. They called me to say "Are you okay? Can we help you?" When somebody cares for you, especially when you're just coming out of high school, you get motivated to do your homework and go to class.*

Students like Judy and Jasmine were motivated by the care and support they received from faculty. The faculty members believed in them even when they didn't believe in themselves. By expressing unwavering confidence in students' abilities, particularly if they were willing to work hard, students felt that they could, in fact, rise to faculty expectations to succeed in college. Jasmine from DeAnza College shared her experience:

> *In the beginning, I was not confident in my writing, but you know, she [my instructor] came up to me and said, 'You know, I don't want you to be discouraged. I am here to help you and when you see the results later on, you'll realize that, okay, you know, I can do this!'*

Nemo, also from DeAnza, added that the faculty "really appreciate us. They want us to learn. They will give you lots of homework and that keeps you going. They don't give up on us." Finally, Anna from LaGuardia said, "Our teachers in the Academy have a lot of dedication toward us. Our English teacher, she might be a little hard on grading things but she's trying to mold us into college students. She sees the potential that we might not see at the moment and brings it out."

By holding students to high expectations yet offering high levels of encouragement and support to enable them to meet those expectations, learning community faculty helped their students to gain confidence in themselves as learners and to view themselves as belonging in college, thereby enabling their success.

A Foundational Experience

Clearly, the students in this study felt they benefited greatly from participating in basic skills learning communities during their first year of college. However, what benefits did students realize, *particularly over time*, as a result of their participation in these learning communities? How did their initial involvement in a learning community shape their academic progress and success throughout their college experience?

Foremost, many students felt their learning community experience benefited them by laying a solid "foundation" for college, setting them on the "right track" by providing the knowledge, resources, and support they needed to be successful in their courses during the first year and beyond. John from DeAnza College shared his experience:

> *Taking LART 100 was one stepping stone for me. When I took the LART, you got the sense, the feeling that they really wanted to get you off on the right foot for your college life. So they really offered you a lot of resources, not just within reading and writing and English, but they would bring in the counselors and bring in outside people. That showed us that people are interested in the students. It was really showing us that there are resources out there helping us, and really supporting students.*

Students also felt that participating in the learning communities not only taught them the skills they needed to succeed with respect to the college curriculum, but they also learned what they needed to know about how to navigate the college system, including how to deal with any challenges they may have to face in the years ahead. Maria from Cerritos College shared:

> *This experience in House A, like I said, is like the foundation of a building. It's teaching me to overcome obstacles in school. That's something I like. They are teaching us how to prepare ourselves for what is to come, how to see it in a positive way, not a negative way, and that's a good way to learn.*

While many students, particularly the native English-speaking students, actually initially resented being placed into basic skills classes, they soon felt that participating in the learning communities was positively shaping their college experience. We did not have one interview in which students described themselves as part of a "developmental," "remedial" or "basic skills" program. Rather, they described how they took required basic skills classes because they didn't do well on the placement test and/or missed some "stuff" in high school. As Shanee from explained:

I didn't come here under-developed. I was just under-prepared. I didn't have the opportunity to learn how to write in my high school and appreciate that I have the chance now.

Rather than making students feel like they weren't "college ready" or "college material," the basic skills learning communities actually made students feel like they belonged in college, particularly that institution, and that they were capable of succeeding there. As Mack from Cerritos College said:

When I went through the FYE program, it changed the whole perspective because I wasn't an individual in a class. I was part of a class, I was part of a college.

The validation and sense of belonging that students received from the learning community experience not only raised their confidence in their abilities to succeed in college, but increased their commitment and motivation to pursue their studies through the completion of their degrees—a lasting benefit indeed.

Conclusions and Recommendations

For many low-income, minority, and first-generation college students, access to higher education means enrolling in community colleges. Given the lack of college-going experience in these students' backgrounds, they tend to arrive on campus with fewer academic, social, and financial resources and with greater work and family responsibilities than their peers, which significantly decrease their chances of success. The odds that low-income and other educationally-disadvantaged community college students will successfully transfer to four-year institutions and earn bachelor's degrees are especially low. A major problem is the paucity of effective models to address these students' academic preparation needs through basic skills courses and programs. In this article, we have examined the extent to which the learning community model can be adapted for community college students taking basic skills classes to provide them with the academic and social support they need to succeed.

The findings from our study provide ample evidence that basic skills learning communities work for academically under-prepared, low-income students at community colleges. The quantitative findings demonstrate that students participating in learning communities are significantly more likely than their peers to persist from freshman to sophomore year—a crucial point at which many students leave higher education—and their higher persistence rates can be attributed to their participation in the learning community even after controlling for other factors such as student achievement and demographic characteristics.

The qualitative analyses identify the important elements of the learning community experience that promote students' learning, success, and persistence in college. In fact, we found that the type of learning community model is not as important as including the following four conditions for promoting a safe, engaging learning environment:

1. Employing active and collaborative pedagogies that foster a sense of community among students, thereby making them more confident about and engaged in their learning both inside and outside of the classroom.
2. Collaborating with other learning community faculty to develop an integrated, coherent curriculum and to model fluid teacher-student roles that encourage students to develop meta-cognitive knowledge about their identity as learners, the conditions under which they best learn, and their role in the learning process.
3. Integrating campus support services and programs into the learning community experience, such as new student seminars and tutoring, to reinforce critical habits and skills essential to students' success, thereby engaging students more deeply in their studies and integrating them into networks of support on campus.
4. Holding students to high expectations yet offering high levels of encouragement and support to enable students to meet those expectations, which help students to gain confidence in themselves as learners and to view themselves as belonging in college, thereby enabling their success.

Furthermore, it is crucial that students' experiences in basic skills learning communities be viewed as "foundational" rather than "remedial" in nature. Basic skills courses can often unintentionally reinforce students' doubts that they are not "college material" and that they do not belong in college. In contrast, the students in this study felt that participating in basic skills learning communities not only

provided them with the knowledge, resources, and support they needed to be successful, it also raised their confidence in their abilities to succeed in college, thus validating their presence on campus and increasing their connection to the campus community - both requisites for college success.

The significance of the findings from this study for transforming basic skills courses into a positive learning experience for under-prepared students should not be taken for granted, particularly in light of more negative findings from other studies. For instance, a national study conducted by Bailey, Jenkins, and Leinbach (2005) found that students who started at community colleges and took at least one basic skills courses in their first year were less likely to earn a certificate, associates, or bachelor's degree (28 percent) than those who required no remediation (40 percent). In addition, they found that white students at community colleges who took basic skills courses were two times more likely to earn a credential or transfer (51 percent) than were black or Hispanic students (24 percent each). Given the demographics of the students in our study, the learning community structures and pedagogies discussed here may be particularly promising and appropriate for the increasingly diverse populations of students entering community colleges today.

Based on our findings, we put forth five major recommendations for community colleges for adapting the learning community model to basic skills instruction for academically under-prepared, low-income students:

1. Increase the number and variety of learning community programs for students taking basic skills and/or ESL non-credit bearing courses with a special emphasis on linking reading and writing courses as well as integrating basic skills math courses into the models.
2. Identify and remove potential barriers, such as personnel, campus policies, local or state policies that can hinder the development of linked course offerings that infuse critical academic support services. For example, institutional policies should not limit students with basic skill (or ESL) requirements to complete these courses before being able to enroll in credit-bearing general education or major courses. In addition, student requirements to pass state-mandated proficiency tests often can get in the way of developing linked curricula.
3. Students tend to enroll in learning communities because the model appears to be more convenient and a more efficient use of their time. Although students later realize the other benefits of participation (e.g., connections with faculty and peers, deeper learning), their decision-making focuses on factors that seem to make their life less complicated. These elements of the learning community programs should be more clearly communicated and marketed to students, using student vernacular and stories in publication pieces, on the campus website, or orientation programs.
4. Design learning community programs using the key structural and pedagogical elements that were shown in this study to contribute to the positive delivery of basic skills classes.
5. Provide ongoing faculty development programs about how to use active and collaborative pedagogies in the classroom as well as strategies for introducing and rewarding student participation in activities that keep them on task outside of the classroom such as study groups and tutoring services. Faculty also need to learn how to teach in ways that engage and motivate students who have been disengaged from their schooling experiences for some time.
6. Systematically evaluate learning community offering using longitudinal, quantitative data that examines student persistence over time and disaggregates findings based on racial, gender, age, income, and language proficiency.

In conclusion, the findings from this study enable us to relearn an important lesson, namely that access without support is not opportunity. For too many students, especially those from low-income backgrounds and who are academically under-prepared, the open door to higher education is a revolving one. As this study shows, providing meaningful support requires more than the mere provision of tutoring, basic skills courses, and learning centers. It requires establishing key conditions conducive to student success on campus. Although learning communities are not the only possible vehicle to establish those conditions, our study demonstrates that they are surely a viable one. The creation of such communities requires

intentional institutional action and the collaborative efforts of faculty, staff, and administrators across campus. To address the success of low-income students, we must stop tinkering at the margins of institutional life; stop our tendency to take an "add-on" or marginalization approach to institutional innovation. We must adopt systematic efforts to restructure students' learning environments. Student success does not arise by chance. Simply put, access without support does not equate to meaningful opportunity for a huge segment of our college population. ↗↗↗

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