Examining the Impact Learning Communities Have on College of Education Students on an Urban Campus

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Student attrition is a problem in universities. A systems perspective describing both departure and retention is helpful in explaining the circumstances in which student retention is increased, particularly for students traditionally excluded from university participation. Risk factors for departure include poor preparation for college and belonging to a demographic group traditionally excluded from academia. We sought to evaluate the impact of participation in a Learning Community on student retention at an urban public research university. We included all students who had been accepted into the College of Education at Level 1 for the fall 2007 semester. We found that involvement in a Learning Community, whether it is specifically formed to address and promote student success in a given area/major, or in a more general/university-wide Learning Community improves student retention.

Across the country, universities grapple with the problem of student attrition. A number of different approaches have been taken to address student needs and help them succeed in academia. Some of the most effective approaches seem to take into account the constructs suggested by Tinto (1975, 1987, 1993), Berger (2001), Berger and Milem (1999), and Astin (1984), which describe student departure and retention from a systems perspective.

Tinto’s (1987) model of departure was used to explain why 41% (p. 21) of those entering college departed the higher educational system without obtaining a degree. In this model, Tinto described the process of student departure as an interaction between the student and their institutional environment. The student’s personal qualities, skills, and intentions interacted with the larger formal and informal social systems within the university. The experiences of the student, within this context, either positive or negative, reinforce persistence in the institution or departure from it.

Furthermore, Berger and Milem (1999) suggested that it is both a student’s behavior and perceptions that interact with the campus environment that ultimately influences the student’s persistence. This approach revisited their integrated model of student persistence in relationship to Astin’s (1984) theory of involvement and Tinto’s (1975, 1993) theory on student departure. Berger and Milem (1999) suggested that it is the “combined model,” that both a student’s behavior and perceptions that interact with the campus environment that ultimately influence student persistence (p. 656). In particular, early peer involvement seems to reinforce perceptions of both institutional and social support.
which also leads to persistence (Chickering & Gamson, 1991; Keeling, 2006).

More recent authors (Berger, 2001; Flowers, 2004; Rocconi, 2011) have offered more specific details to explain the circumstances in which student retention is increased, particularly for students traditionally excluded from university participation. Flowers (2004) confirmed the ever-growing body of research that suggests that student participation, in and outside of the classroom, is the key to academic development. Flowers explored the differences between African American and White students in the levels of participation using the College Student Experiences Questionnaire, 3rd edition. Flowers gathered information on 7,923 students from 192 postsecondary institutions over a 10-year period. He concluded that in-class and out-of-class experiences have a positive impact on the development of African American students. However, African American students reported a low to moderate level of involvement. This, in turn, reduced their self-report of educational gains.

More recently, thinking about student retention has investigated the specific mechanism of learning communities as an effective intervention with students on a social participation level. Rocconi (2011) explored the indirect and direct relationships between students participating in a Learning Community (LC), engagement and educational benefit obtained, using the College Student Experience Questionnaire. The results of the study suggest that students participating in LCs benefited from the social involvement associated with the experience. This was, in turn, strongly related to interaction with peers and faculty.

AN URBAN PUBLIC RESEARCH UNIVERSITY

Efforts to create a LC program at a major Midwestern research institution have been under-way for the past 9 years. LCs were formed in an attempt to enhance a student’s academic and social experience on campus. The intent was to foster student integration into the university community (Shapiro & Levine, 1999).

In the past 9 years, the number has grown from a handful to 35 LCs in 2009. They vary across the campus in size, configuration, and scope, but have common components of peer mentoring, as well as an overarching structure that provides guidance, assistance, and assessment.

In the College of Education (COE), seven LCs were established during the 2007–2008 academic year. Of those, four targeted undergraduate success. The four LCs consisted of 112 undergraduate students. An additional 149 students, admitted to the COE, participated in a LC other than those within the college. This article examines the impact that LCs had on newly admitted undergraduate students in the COE.

BACKGROUND

This study was conducted on an urban research commuter campus located in the heart of a major Midwestern city. Although not a historically black university, it is committed to an urban mission, and is known for serving a population of students who have been traditionally excluded from higher education, such as students with low income, those who are the first generation to go to college, or those who have ethnic minority status. Its widely diverse student population is approximately 30,000; 19% are African American.

Retention of at-risk students was a major concern from the early 1990s to 2001 at the university. The term at-risk student for this study was defined as those students attending the university who were first generation and/or minority and could be from a lower socioeconomic background.
During the 2000–2001 academic year, the university began moving away from a focus on helping the at-risk student to a more general, university-wide retention model. A newly formed university-wide retention committee began the task of reviewing various areas determined to be key to the retention and persistence of all students on campus. From this review the following measures were considered in an attempt to improve the retention and persistence of all students on campus: Advising, curriculum reform in key courses, direct admission into colleges/schools, and LCs.

During this time of transition, the COE began the process of directly admitting undergraduate students to the college for the first time, in the fall of 2006. Because of this change, freshmen and sophomore retention and success became of greater concern for the COE directly. The dean, recognizing the new challenges of directly admitting students to the college, began to put into place measures to support students’ success in the college. One such measure was the full support of the creation of LCs for new undergraduate students in the COE.

Students directly admitted to the COE can be admitted into college at one of two levels. Progress as a student is evidenced by movement from Level 1 to Level 2. To move from Level 1 to Level 2 standing, students must complete 53 credit hours with a grade point average of at least 2.5, pass all portions of the state’s teacher certification basic skills test, meet the university’s math competency requirement, and pass a criminal background check.

Students in this study were those students who had been admitted to Level 1. Some of these students received no LC support. Others were members of LCs. Some LCs were within the COE and some were outside of the college. One community within the COE was exclusively for men. Others COE LCs focused on the development of future teachers at the beginning of their academic career. In addition, many study participants were members of various LCs outside the college. Common to all LCs was the incorporation of peer mentors as a part of the LCs’ configuration for funding support from the Office of the Provost. Peer mentors in the LCs assisted fellow students with finding the appropriate academic support when needed, helped to develop social and cultural opportunities, served as a liaison between students in the community and the coordinator/faculty member, and helped with the overall transition of the students to college life.

HYPOTHESIS

Some students are particularly at risk of attrition in higher education. Risk factors include poor preparation for college and belonging to a demographic group traditionally excluded from academia. The hypothesis of the present study was that expected links between student dropout and risk factors would be reduced by membership in a LC.

METHOD

Participants

Participants included all students who had been accepted into the COE at Level 1 for the fall 2007 semester (N = 631). Seventy-five percent of participants were female. The mean age was 19 (range, 17 to 47). Using the 2000 census definitions, 54% of participants were White, 33% were Black, non-Hispanic, 4% were Asian / Pacific Islander, 4% were Hispanic, 1% were Arabic, 1% were nonresident alien, and 2% were unknown.

Procedure

The intervention was membership within a LC. Of the 631 students admitted into the
college at Level 1, 261 were supported by LC activities. We completed a retrospective cohort study on data collected between fall 2007 and spring/summer 2009. ACT composite score, credit hours earned, high school grade point average (GPA), and demographic information were analyzed (Tables 1 and (2)).

Data Analysis

The central question of this study was how involvement in a LC predicted student retention and achievement, and how these varied by ethnicity and academic preparation. We performed a standard multiple regression between student retention (number of credits earned in 2 years) as the dependent variable and ethnicity, ACT score, high school GPA, and membership in a LC as independent variables. A conceptual framework is presented in Figure 1.

RESULTS

Correlations were calculated for all variables (Table 3). LC participation was the strongest

![Conceptual Framework and Operational Construct for Analysis](image1)

**TABLE 1.**
Response Descriptions for Variables

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1</td>
</tr>
<tr>
<td>Student of color</td>
<td>2</td>
</tr>
<tr>
<td>LC Participation</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
</tbody>
</table>

**TABLE 2.**
Mean Values ($M$) and Standard Deviations ($SD$) for Variables ($N = 187$)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student retention (credits earned)</td>
<td>25.02</td>
<td>17.82</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic preparation (ACT composite)</td>
<td>20.27</td>
<td>4.72</td>
</tr>
<tr>
<td>Academic preparation (high school GPA)</td>
<td>3.11</td>
<td>0.50</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>1.39</td>
<td>0.49</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Community</td>
<td>0.62</td>
<td>0.49</td>
</tr>
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</table>
significant predictor of academic retention. The adjusted $R^2$ of 0.20 revealed that the ethnicity, ACT score, high school GPA, and membership in a LC accounted for 20% of the variation in the dependent variable, academic retention. Goodness of fit indicated that the model had the potential to fit the data, $F(4, 172) = 12.07, p < .001$. Table 4 presents the unstandardized regression coefficients ($B$), the standardized regression coefficients ($\beta$), the semipartial correlations ($sr^2$), and adjusted $R^2$ (Tabachnick & Fidell, 2007). The size and direction of the relationships suggest that more credits are earned among students with high school GPAs that are above average who are members of a LC. However, between those two, membership in a LC seems to play a stronger role, as indicated by the slightly higher squared semipartial correlations.

Investigation of the squared semipartial correlations revealed that neither ethnicity nor ACT contributed significantly to the regression within a model including academic preparation (high school GPA and ACT) and LC involvement. Instead, the relationships seemed to be mediated by LC involvement and high school GPA.

**DISCUSSION**

The findings from this study suggest that involvement in a LC, whether it is specifically formed to address and promote student success in a given area/major or is a more general/university-wide LC, seems to improve student retention. Furthermore, the expected influence of ethnicity and ACT on student retention was insignificant when considering LC involvement and high school GPA in the model.

Berger and Milem’s (1999) integrated model provides a plausible means of understanding why students in LCs were retained at a higher rate. Because students in LCs, at this particular institution, are placed in an environment in which there is an expectation for both academic and social involvement by its members, it seems reasonable that students taking advantage of the LC experience would benefit in some way.

Thus, students who are more invested in their education and learning environment are more likely to gain from their experience at the university. Therefore, institutions that are perceived as being invested in the students’ well-being and clearly communicate

**TABLE 3.**
Correlations Between Variables ($N = 187$)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Retention (DV)</th>
<th>Ethnicity</th>
<th>ACT</th>
<th>High School GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-0.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACT</td>
<td>0.31*</td>
<td>-0.45*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School GPA</td>
<td>0.30*</td>
<td>-0.22</td>
<td>0.32*</td>
<td></td>
</tr>
<tr>
<td>Learning Community</td>
<td>0.35*</td>
<td>-0.11</td>
<td>0.32*</td>
<td>0.14</td>
</tr>
</tbody>
</table>

* $p < .01$.

**TABLE 4.**
Standard Multiple Regression of Ethnicity, ACT, High School GPA, and Learning Community Involvement on Credits Earned in 2 Years

<table>
<thead>
<tr>
<th>Variables†</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>$sr^2$ (unique)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-4.36</td>
<td>2.77</td>
<td>-0.12</td>
<td></td>
</tr>
<tr>
<td>ACT</td>
<td>0.40</td>
<td>0.31</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>High School GPA</td>
<td>7.47*</td>
<td>2.56</td>
<td>0.21</td>
<td>0.04</td>
</tr>
<tr>
<td>Learning Community</td>
<td>9.94*</td>
<td>2.60</td>
<td>0.27</td>
<td>0.07</td>
</tr>
</tbody>
</table>

† Unique variability = 0.13; shared variability = 0.09; adjusted $R^2 = 0.20$.

* $p < .01$. 

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**November/December 2013 • vol 54 no 6**
this to the students, university community, and the general public help to promote student engagement and success (Pascarella & Terenzini, 2005). Research on residential LCs supports this finding by demonstrating increased levels of involvement, integration, and interaction (Pike, 1999). These seem to lead to greater student retention.

Future research is needed to better understand the precise linkages between student retention and LC involvement. For example, Pike's (1999) conceptual model began to identify those elements that promote greater successful outcomes in LCs.

In this case, the benefit to students was in the form of retention, a greater number of credit hours taken, and progress toward degree completion. A more subtle attribute of the LCs, for some students, would be in the form of achieved GPA. Overall, this study found that students in LCs, including at-risk students, obtained an average GPA equivalent to students who did not participate in a LC. Braunstein, Lesser, and Pescatrice (2008) also found an impact on retention in their study of disadvantaged students. It is possible that, because at-risk students achieve similar GPAs as did the not-at-risk students, the benefit for those at risk may be greater than indicated by the data. Further research on the impact of LCs on at-risk student GPAs should be considered.

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REFERENCES
