LENDING

PHOTOCOPY REQUEST

ILLiad TN: 1355430

Call Number: LB2343.32 J68 V. 23 NO. 2

Journal Title: Journal of the first-year experience & students in transition.
Article Author:
Article Title: Smith, Rachel A. 'Learning Community Transitions in the First Year: A Case Study of Academic and Social Network Change'

Vol: 23 Issue: 2
Month: Year: 2011
Article Pages: 13-

Branch Location: Storage
Pickup Location: Newman
Interlibrary Loan
E-Mail: ill@vt.edu
Phone: 540-231-3044
2009 – 2010 Paul P. Fidler Grant Recipient
In 2005, the National Resource Center for The First-Year Experience and Students in Transition established a research grant in honor of Paul P. Fidler to encourage and enable scholarly research on issues pertaining to college student transitions. Dr. Rachel A. Smith was the 2009-2010 grant recipient. We are honored to present this article which reports on a study examining the academic and social integration of students in a theme-based residential learning community compared to those who reside in a random-assignment residence hall floor.

Learning Community Transitions in the First Year: A Case Study of Academic and Social Network Change

Rachel A. Smith
Baruch College, CUNY

Abstract. Residential learning communities often focus on easing first-year students’ transitions to college by emphasizing the creation of peer social and academic relationships. However, this relational process is most often examined through analyzing individual student characteristics, behaviors, and attitudes. This study used network analysis to elucidate the process of residential community development. Specifically, it examined academic and social integration by comparing peer networks generated through a theme-based residential learning community with a random-assignment residence hall floor. Results suggested that learning communities may create an environment where first-year students form academic and social ties more quickly, although these levels were not sustained into the second semester.

Researchers interested in the academic and social integration of students on college campuses typically focus on the individual (Tinto, 1993). Students’ entering characteristics are used in analyses of their subsequent campus involvement and retention. The importance of students creating and maintaining a supportive academic and/or social support system is not disputed. However, the process of relationship formation is not often studied. Characterizing webs of relationships as networks permits the use of network analysis to expound on the process of academic and social relationship development within residential communities. The precise academic and social networks that students form
can be explicited, and change over time can be traced. The specific process of academic and social integration—the process of relationship tie formation—that students undergo within specific communities is more easily understood through studying the initial structures of residential networks, the content of their relationships, and how they change over the academic year. This knowledge aids researchers in creating more specific models and helps practitioners create more educationally beneficial environments.

This study analyzed the patterns of connections over time among college students in two specific environments in order to explore the differential process of community development. Specifically, the study explored (a) whether greater initial academic and social integration occurs in a residential learning community as compared to a random-assignment residence hall floor and (b) the extent to which these levels are maintained throughout the first year. Results suggest the learning community facilitated greater initial academic and social integration, as measured by network density, but that these levels are not sustained into the second semester. In addition, there is evidence that the learning community promotes connections that are initially both academic and social (multiplex), but that as time passes they become one-dimensional.

Theoretical Framework

A key component in the success of students' first-year experiences is their effective academic and social integration into the college environment (Tinto, 1993). Tinto's frequently studied model attempts to explain student departure from college partially as a result of the student's interactions with others in the institution's academic and social communities.

The present study is based on the constructs of academic and social integration, defined by Tinto as "some type of social and/or intellectual membership in at least one college community" (p. 121). Extensive research has examined the validity of Tinto's model at a variety of institutions and for different student populations (Braxton, Sullivan, & Johnson, 1997). Previous studies have specified academic integration as some combination of GPA, interactions with faculty, hours studying, academic interactions with peers, and academic satisfaction (Cabrera, Nora, & Castaneda, 1993; Nora, 1987; Pascarella & Chapman, 1983; Pascarella & Terenzini, 1983; Stage, 1989). Social integration has been measured in terms of, among others, quality or frequency of relationships with peers, hours spent in extracurricular activities, and perceptions of peer relationships (Cabrera et al.; Nora; Pascarella & Chapman; Pascarella & Terenzini; Stage).
While these specifications of academic and social integration in relationship to persistence have been widely studied, less attention has been given to the actual process of integration. A more precise measurement of integration would look at the extent to which students can interweave themselves into the web of relationships that comprise the institution and how the institution can facilitate this process. Learning more about the specific process of academic and social relationship building is vital for understanding how the student and the institution interact, and therefore what the institution can do to foster productive academic and social relationships on campus.

Recognizing the importance of beneficial peer connections, an increasing number of four-year institutions have begun to focus more attention on the residential communities that can structure a first-year student's academic and social interactions. In particular, many institutions have developed a variety of residential learning communities. These learning communities range from theme floors, where those who have similar interest in a topic elect to live in the community; to co-enrollment in several courses; to residential colleges. Researchers have found generally positive relationships between residential learning community involvement and engagement, academic success, and successful college transitions (Inkelas, Daver, Vogt, & Leonard, 2007; Pasque & Murphy, 2005; Pike, 1999; Stassen, 2003; Szelenyi, Inkelas, Drechsler, & Kim, 2007; Zhao & Kuh, 2004). Pascarella and Terenzini (2005) report mixed results of learning community studies when controls are in place and note that self-selection often confounds the analysis process. In many cases, the effect sizes of the learning communities, while statistically significant, are practically small. Therefore, simply having the category learning community member applied to a student means relatively little—it is what is going on inside the program that potentially contributes to a positive outcome for a student.

Additionally, there may be some negative side effects to combat. These may include narrowly focused interactions that inhibit broader learning and personal growth (Portes, 1998) or pressure to conform to negative group norms (Jaffee, Carle, Phillips, & Paltoo, 2008). Research indicates that there is likely an ideal amount of connectivity that is desirable among students, with either too much or too little being detrimental to academic success (Jaffee et al.; Thomas, 2000). A deeper analysis of community structure is needed, so that educators can design communities that are both supportive and challenging enough to foster learning. Currently, very little is known about the specific character of engagement via the social and academic networks that students develop during their first year.
This study calls for a new way of conceptualizing and analyzing the social and academic connections students make on campus, which has traditionally been conceived of in terms of academic and social integration, involvement, or engagement (Kuh, 2009; Reason, 2009; Tinto, 1993). Although these concepts encompass students’ forming academic and social relationships with each other, none measures the process specifically in terms of the relational structures. Instead, they are typically measured through individual students’ reported behaviors and perceptions (Berger & Milem, 1999). An underutilized way to study this relational process explicitly is through social network analysis. It is both an intellectual approach (Wellman, 1983) and a set of tools that can be used to study the particular relationships among students in a community. Network analysis examines such relationships and social network structures as the fundamental unit of analysis, rather than individuals (Scott, 2000; Wasserman & Faust, 1994). A network perspective allows for the examination of community-wide structure and trends and changing patterns of relationships between students.

Also informing this study is Thomas’ (2000) notion that network analysis is more appropriate to the conceptualization and measurement of academic and social integration. Thomas examined the specific structure of peer relationships that were associated with persistence. While Thomas did not differentiate between relationships with various purposes in his study, he did call for more research that focuses on multidimensional types of ties. It may be more useful to examine peer relationships more specifically through the content of the relationships rather than their mere existence. The strength of students’ academic and social integration may differ based on the character of peer relationships, in terms of which peers they use for studying or for socializing.

The concept of network density is particularly applicable to the study of residential communities. Density refers to the percentage of possible ties that were actually reported by community members. A higher density value means there is a higher percentage of reported ties within the community. Density has been used to measure such concepts as social support (Coleman, 1988), stability of personal networks (Wellman, Wong, Tindall, & Nazer, 1997), personal regard (Carter & Feld, 2004), and group versus individualist orientations (Fischer & Shavit, 1995). In this study, density was used to operationalize the concepts of academic and social integration. The more dense the network, the more integrated the students were into the community.

If learning communities are able to foster increased academic and social integration, the difference between learning communities and random-assignment
residence hall floors should be visible in the structure and content of the relational ties. The learning community would be hypothesized to contain a higher percentage of possible academic and social ties, which means an increase in the density of the networks. The learning community also would contain more multiplex ties—serving both academic and social purposes—as students would be more likely to study and socialize with the same peers. Examining students’ academic and social networks as they evolve over the first year offers new insight into the structural process of academic and social integration.

Methods

The analysis and results described here are a segment of a larger mixed-methods study. Two communities provided the settings in which to examine the peer relationships involved in academic and social integration over the first year. Although this is just one arena in which college integration could occur, it is an important one since students who attend a residential college could be expected to spend much of their time in their residence halls. Because the communities contained a bounded number of students, they were good candidates for community-wide network analysis.

Participants

Two residential communities were chosen to provide two different contexts in which to examine community formation over time. The sites were both located at a mid-sized, private research university in the Northeast. First- and second-year students are required to live on campus and, for the most part, live on mixed-year residence hall floors. The university has an established learning community program, a variety of learning community types, and an increasing number of students involved in learning communities.

Participant descriptive statistics can be found in Table 1. The participants reflect roughly the demographics of the university, although the participant group has a slightly higher percentage of students of color and a slightly lower percentage of women than the university as a whole. While ideally the participant group would have been made up of only first-year students, no residence hall floors existed at this institution that house only first-year students.
Table 1
Descriptive Statistics, by Type of Residential Community

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total sample (N = 140)</th>
<th>Learning community (n = 76)</th>
<th>Random-assignment floor (n = 64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning community floors (% Yes)</td>
<td>54.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NonLC members living on LC floors</td>
<td>-</td>
<td>21.1</td>
<td>-</td>
</tr>
<tr>
<td>Student characteristics (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex (female)</td>
<td>50.0</td>
<td>54.0</td>
<td>45.3</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>5.7</td>
<td>2.6</td>
<td>9.4</td>
</tr>
<tr>
<td>Asian/Asian American</td>
<td>15.7</td>
<td>17.1</td>
<td>14.1</td>
</tr>
<tr>
<td>Latino/a</td>
<td>6.4</td>
<td>6.6</td>
<td>6.3</td>
</tr>
<tr>
<td>White, nonHispanic</td>
<td>72.1</td>
<td>73.7</td>
<td>70.3</td>
</tr>
<tr>
<td>Class year (first-year)</td>
<td>80.0</td>
<td>82.9</td>
<td>76.6</td>
</tr>
<tr>
<td>Academic major</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts</td>
<td>37.3</td>
<td>48.0</td>
<td>23.7</td>
</tr>
<tr>
<td>STEM</td>
<td>13.4</td>
<td>8.0</td>
<td>20.3</td>
</tr>
<tr>
<td>Other</td>
<td>49.3</td>
<td>44.0</td>
<td>56.0</td>
</tr>
</tbody>
</table>

Case 1: ProArte, An Arts-Themed Learning Community

The first case was a residential learning community, called ProArte, which has the arts as a theme. Students were typically interested in such majors and topics as instrumental and vocal music, drama, film, drawing, painting, sculpture, illustration, architecture, and fashion. The learning community consisted of 76 students between two floors, 35 men on one floor and 41 women on the other. Most residents were first-year students, but each floor also housed some second-year students. Of the 55 students enrolled in the learning community, 19 were male and 36 were female. The learning community was affiliated with
a university-required introductory writing course and a music performance appreciation course. Because of the flexibility of the learning community structure, students had choices in how they participated. Three students were enrolled in both courses, 15 students were enrolled in the writing course, and four students were enrolled in the music course. The two residence advisors organized several different events and trips held throughout the year that included participating in activities with faculty members (August), involving students in campus-wide learning community activities (September), watching films (October), and engaging in other arts events. The main event of the year was the learning community’s trip to New York City, held at the end of March. The women’s floor held meetings nearly every week, usually attended by the same group of 15-20 female residents. The men’s floor held significantly fewer meetings over the course of the entire year, and usually only to discuss mandatory information such as move-out processes.

Case 2: Tyler 2, a Random-Assignment Residence Hall Floor

The second case is a random-assignment residence hall floor, Tyler 2, located in a different building. There were 64 students on the floor. The students were placed there primarily through the housing lottery process, though the 10 second-year students typically chose to live there with specific roommates. The floor was divided into two wings, with men in one wing and women in the other, and a central lounge area. The floor was chosen because of its high percentage of first-year students, which facilitated a better analysis of the network formation that takes place among first-year students. The floor was largely representative of similar types of residence hall floors throughout campus. The two residence advisors (RA) held several floor meetings over the course of the year, used primarily to convey administrative information. A group of students on the floor would meet with the RAs for an optional, informal weekly lunch in the building’s cafeteria, and there were a few floor activities, such as Root Beer Pong, an alcohol education event. Overall, there were fewer organized activities on this floor than in the learning community.

Data Collection Procedures

A paper-based social network survey was administered twice to each community. The survey used a common roster-style network survey format (Wasserman & Faust, 1994), with additional questions relating to involvement, learning community experiences, outcomes, and demographics. The survey was developed in spring 2006 and piloted with a group of summer bridge program
students during the summer of 2006. The survey was administered in November/December 2006 and April/May 2007 in the residence halls. Both surveys contained a roster of students living on each floor, and the students were asked to list the average number of hours per week spent studying and socializing with fellow community members. The response rate for the first survey was 92%, while the rate for the second survey was 85%. While most students were included in the analysis vis-à-vis other students' reports about them, the results do not contain items reported by the nonrespondents themselves. The results of the two surveys were then used to study the arrangement of academic and social ties and the evolution of communities over time.

**Measures**

For the purposes of this study, the concepts of academic and social integration needed to be operationalized. The network structure was measured in terms of two actors' interaction frequency, in hours per week. For these analyses, this measure was binarized (the tie existed or it did not) and symmetrized (if one student reported a tie, it was a tie). The two content areas of the ties are academic interaction and social interaction, as reported in the network surveys.

Both density data and sociograms (network visualizations) provided evidence of the academic and social integration levels on the floors and how they changed between the first and second semesters. Network density measures were used to compare overall community networks to examine the degree to which students within the community were connected to each other. Density measures were calculated and statistically compared in Ucinet (Borgatti, Everett, & Freeman, 2002). Sociograms were constructed in NetDraw (Borgatti, 2002). In the sociograms, each student is a node (circle), and the line between them represents a relationship. The thick solid lines are multiplex ties, representing both an academic and a social relationship. The thinner, dashed lines are academic-only relationships. Social-only ties are not depicted, due to the high number of ties. Nodes that have no lines mean that the student is either unconnected to other students in the community or has only social ties to others in the community.

**Results**

The results are presented in two sections. The first part of the analysis examines levels of academic and social integration within the two communities by comparing academic and social density measures and exploring to what
extent these levels persist over time. The second section presents sociograms in order to visually explore the types of ties within the community and the shifts in the content of the ties that occurred during the academic year.

**Comparisons of Density Measures**

Density measures capture how much of the potential interactions are actually happening. The greater the density, the more relationships there are among students, and thus the more integrated students are within the community. Fall 2006 density statistics give a numeric representation of academic and social integration within the two communities during the first semester (for most students). The fall 2006 density measures and their standard deviations can be seen in Table 2. The learning community social (0.17, \(SD = 0.38\)) and academic (0.09, \(SD = 0.28\)) networks are both numerically denser than the respective Tyler 2 networks (0.16, \(SD = 0.37\); 0.05, \(SD = 0.22\)). (The two communities cannot be compared statistically because the networks contain different students.) Substantively, these density measures mean that, for example, in the learning community 17% of possible social ties actually were reported within the community. According to the density measures, the learning community shows slightly more social integration, and substantially more academic integration. The ProArte social network is significantly denser than its academic network (\(p < .001\)), and the Tyler 2 social network is also significantly denser than its academic network (\(p < .01\)). In both communities, then, social integration appears to be taking a primary role in the experience of first-year students.

<table>
<thead>
<tr>
<th>Community &amp; type of network</th>
<th>Density</th>
<th>St. Dev.</th>
<th>(p) value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning community, Social</td>
<td>0.17</td>
<td>0.38</td>
<td></td>
</tr>
<tr>
<td>Learning community, Academic</td>
<td>0.09</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.09</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Random-assignment floor, Social</td>
<td>0.16</td>
<td>0.37</td>
<td></td>
</tr>
<tr>
<td>Random-assignment floor, Academic</td>
<td>0.05</td>
<td>0.22</td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.11</td>
<td>&lt;.01</td>
<td></td>
</tr>
</tbody>
</table>
Does this amount of integration persist in the two communities past the first semester? The density measures for the four spring networks demonstrate changes in both communities’ networks (Table 3). Similar to the fall semester measures, the spring social network density measures in both communities are statistically greater ($p < .001$) than their respective academic network density measures. This means that the primacy of social connections within the communities remains during the whole of the first year.

Table 3
*Network Density Measures, Spring 2007*

<table>
<thead>
<tr>
<th>Community &amp; type of network</th>
<th>Density</th>
<th>St. Dev.</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning community, Social</td>
<td>0.14</td>
<td>0.35</td>
<td></td>
</tr>
<tr>
<td>Learning community, Academic</td>
<td>0.05</td>
<td>0.22</td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.09</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Random-assignment floor, Social</td>
<td>0.12</td>
<td>0.33</td>
<td></td>
</tr>
<tr>
<td>Random-assignment floor, Academic</td>
<td>0.06</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.06</td>
<td>&lt;.001</td>
<td></td>
</tr>
</tbody>
</table>

Table 4 compares densities from the four respective networks over time. The social density measures for both communities fell, although the difference was only significant for the ProArte community ($p < .05$). While the ProArte community had a social density of 0.17 ($SD = 0.38$) in the fall, its spring measure was 0.14 ($SD = 0.35$). This means that all of the social connections made in the fall did not persist into the spring for the learning community. In terms of academic network density measures, the ProArte community density decreased significantly ($p < .01$), falling from 0.09 ($SD = 0.28$) in the fall to 0.05 ($SD = 0.22$) in the spring. The academic and social decline in density provided evidence that the high levels of academic and social integration were not sustainable past the first semester, although this may be affected by the fact that students took courses together only during the fall semester.

Similarly, Tyler 2’s social network density fell from 0.16 ($SD = 0.37$) in the fall to 0.12 ($SD = 0.33$) in the spring, although this difference was not statistically significant. The sole measure changing in the opposite direction over time was the Tyler 2 academic network density. Tyler 2’s academic density rose from
Table 4

<table>
<thead>
<tr>
<th>Community &amp; type of network</th>
<th>Difference in density</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning community, Social</td>
<td>-0.03</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Learning community, Academic</td>
<td>-0.03</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Random-assignment floor, Social</td>
<td>0.04</td>
<td>not significant</td>
</tr>
<tr>
<td>Random-assignment floor, Academic</td>
<td>0.02</td>
<td>&lt;.09</td>
</tr>
</tbody>
</table>

0.05 (SD = 0.28) in the fall to 0.06 (SD = 0.24) in the spring, although this increase was not statistically significant. Tyler 2 also showed a slightly higher percentage of academic ties (0.06, SD = 0.24) within the community in the spring than did ProArte (0.05, SD = 0.22). In sum, the learning community density measures began to look more like the random-assignment floor measures as students completed their second semester. The learning community demonstrated higher levels of academic and social integration during the first semester, but these higher levels were not sustained by the end of the first year.

Analysis of Sociograms

Density measures alone make it difficult to show whether a student might have multiple types of ties with another student because the content of the ties is analyzed separately through academic and social networks. A sociogram can help to understand the overlapping character of the ties because they can depict multiple relation types simultaneously. This analysis adds more depth than density measures alone and gives a more nuanced view of relationship development and change. In these networks, a multiplex tie would be one that is both social and academic, so the student could use a particular relationship for more than one purpose. These ties are theorized to sometimes be stronger than other ties, since they are multipurpose (Scott, 2000). Sociograms for each community over two semesters are depicted in Figures 1-4.

In comparing the multiplex fall networks from the two communities (Figures 1 and 2), two features are striking. The ProArte community has many more multiplex ties (solid line) than the Tyler 2 community. This means that the learning community has more relationships between students that are both academic and social, a key finding that one would expect if the learning
community were effective in facilitating dual integration. Second, ProArte has more academic-only ties (dashed line) than Tyler 2. This is perhaps not surprising, given the number of students who share classes and majors. The Tyler 2 sociogram (Figure 2) shows that in the fall, nearly all of the academic ties on the floor were also social ties. Taken together, these figures show that in the fall, Tyler 2 students tended to have the same peer groups for both studying and socializing. In contrast, ProArte students had multiplex ties in addition to academic-only relationships.

Figure 1. ProArte network depicting fall 2006 academic and multiplex ties.

Figure 2. Tyler 2 network depicting fall 2006 academic and multiplex ties.
The spring networks, depicted in Figures 3 and 4, tell a story of change over time. The ProArte students were, for the most part, no longer co-enrolled in courses. The ProArte spring network (Figure 3) shows far fewer multiplex ties than it did in the fall, and fewer multiplex ties than the Tyler 2 community. The ProArte students’ ties have become more one-dimensional. They have peers for socializing and they have peers for studying, but the two do not overlap as much as they did in the fall. Tyler 2 (Figure 4), on the other hand, shows more multiplex ties and more academic ties in the spring than it did in the fall. This sociogram highlights how the academic density of Tyler 2 increased from the fall to the spring (though not in a statistically significant way), as demonstrated earlier. Tyler 2 students created a greater number of ties that were both academic and social, and they forged a greater number of ties that

Figure 3. ProArte network depicting spring 2007 academic and multiplex ties.

Figure 4. Tyler 2 network depicting spring 2007 academic and multiplex ties.
were academic only. This suggests that, later in the year as students looked to peers for academic interaction, they turned to those they already knew as friends and to those they knew about who lived on the floor.

Limitations

Although the results suggest a potentially strong relationship between learning community participation and first-year social and academic network density, the small sample size precludes strong generalizability. Regarding the research sample, two factors would have strengthened the study. Ideally, all students living on the learning community floors would have been enrolled in the learning community, so results of this study may actually underestimate the effect of living on a theme floor. Second, for the purposes of examining first-year transitions, it would have been useful if all of the students living on the floors were first-year students. However, second-year and nonlearning community students were retained in this analysis to preserve the integrity of network analysis, which considers communities as a whole.

Discussion

The network density measures and sociograms suggest that the learning community was successful in promoting academic and social integration within the residential community, perhaps easing the transition to the institution. However, the initial level of academic integration was not sustained into the second semester, which could plausibly be linked to the lack of intentional co-enrollment in courses in the spring. These results point to the need to look more closely at the process of academic and social integration over time as it is executed in a variety of collegiate environments. Results suggest that the rate of academic and social integration may differ based on type of community and that the character of peer relationships may shift over time in different ways.

Results indicated that for these communities there may be a temporal difference in the rate of academic and social integration that varies according to the type of community. This finding expands on Stage’s (1989) notion of a reciprocal relationship between academic and social integration. She found that for men, more academic integration leads to more social integration, while for women, social integration affected academic integration. Instead of a gender-based pattern, the findings of the present study highlighted two residential community-based patterns.

In the learning community, students seem to develop both academic and social ties relatively early in the semester. This seems to be good news for those
who seek to institute or improve learning communities. Being essentially a theme floor, tied to a few optional courses, the learning community was not particularly demanding in terms of faculty or staff planning time. So in this study of a learning community with a relatively simple form, placing students with a similar interest together creates a more dense network, which is theorized to be more supportive (Coleman, 1988).

Beyond the first semester, however, learning community students maintained more ties that were either academic or only social. The finding that learning community multiplex ties were not sustained over the first year is surprising given that in theory the learning community promotes ties that are both academic and social, ideally leading to fuller integration with the institution. This suggests that for Tinto’s (1993) theory, it is possible that learning community students end up with different groups of peers for studying and socializing, and that these groups may change over time. The purpose of the learning community might not be the creation of sustained multiplex ties, but the creation of more academic ties that are not necessarily also social. The unsustained multiplex ties may also be related to the structure of the learning community (Inkelas & Weisman, 2003), given that the students were not intentionally co-enrolled in courses during the second semester. These findings are consistent with more recent learning community research that found limited longevity in the outcomes of curricular learning community participation (Scrivener et al., 2008).

The random-assignment floor demonstrated a different pattern of residential academic and social integration over time. While it demonstrated less overall academic and social integration than the learning community, Tyler 2 students created more academic ties during the second semester. The interesting feature about this community was that these later academic ties were multiplex ties, while in the learning community they became academic only. From the evidence presented in the multiplex sociograms, learning community students may be negotiating academic and social ties more concurrently and earlier in their transition to college. In contrast, Tyler 2 students were more likely to develop academic ties with those with whom they already had social ties. This finding suggests that Tyler 2 students may influence each other around study habits. Students who formerly only socialized together found it important to study together in the second semester. The two communities may also provide students with different paths through a transition process, but end with a similar percentage of academic ties. Given the amount of change over time, it is important that research follows the same students over a period of time.
Implications for Practice and Further Research

This study echoes those that suggest the degree of structure in a learning community has implications for educational outcomes (Inkelas & Weisman, 2003; Jaffee et al., 2008; Purdie & Rosser, 2007; Stassen, 2003). The learning community examined here was flexible in its structure, allowing students choice about the degree of their participation. It may be that co-enrollment in courses during both semesters could have maintained the level of academic integration that was exhibited during the first semester. This study also illustrates additional measures that could be used by administrators to assess the effectiveness of the communities they facilitate. Network-based questions could be added to existing assessment measures that would give administrators a better picture of the structural integration students are experiencing.

This study’s findings and limitations point to future research questions that should address both theoretical and practical questions. This study focused on hours spent interacting academically and socially as the content of the relational ties. Other network questions could be used that would attach a perceptual state to the interaction. This type of data could provide network information about both behaviors and perceptions (Berger & Milem, 1999). Network perspectives could be used to study other factors that intersect with the concept of integration or community membership. For example, students’ sense of belonging in the campus environment, particularly for racial and ethnic minority students, has been posited as critical to understanding “how particular forms of social and academic experiences affect these students” (Hurtado & Carter, 1997, pp. 324-325). Sense of belonging as a psychological construct could be usefully incorporated with the more structural social network analysis to present a fuller picture of what it means to be (and feel like) a valued and engaged member of the campus community. Further studies on learning communities could examine additional nuances that may affect networks, such as the type of learning community.

The residential learning community is one example of an institutionally shaped venue through which students can become academic and social members of the larger institution. The process of academic and social network development is not a given, as it can be shaped by students and by higher education administrators. Given the importance of such networks, administrators should create communities with intentionality and learn more about how their specific contexts affect student network formation and, ultimately, student success in college.
References


Reader May Respond:

Rachel A. Smith  
Assistant Professor  
School of Public Affairs, Box D-0901  
Baruch College, CUNY  
One Bernard Baruch Way  
New York, NY 10010  
Phone: (646) 660-6745  
E-mail: rachel.smith@baruch.cuny.edu