A Cross-Cultural Analysis of Students' Sense of Community, Degree of Involvement, and Educational Benefits

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Abstract

Universities and colleges are becoming increasing decentralized with the introduction of non-traditional students (e.g., older, employed, commuting students) and modern instructional strategies (e.g., online learning, distance education). These trends exacerbate students' perceptions of belonging with the campus. One approach at examining students' sense of belonging is the concept of sense of community. This study investigates the nature of students' sense of community with a commuter campus and the interrelationships of this concept with students' forms of involvement in the campus and academic success. Further, the study explores cultural differences in the interrelationships of students' sense of community with their campus, their forms of involvement, and their academic success. A total of 308 students at a commuter campus on the west coast were surveyed regarding their sense of community with the campus, their degree of interactions on the campus, and their perceived academic success. A path analysis of these constructs indicated the importance of one's sense of community and the importance of various forms of interaction, especially faculty-student interaction. However, an examination of cultural differences among European-American, Latino-American, and Asian-American students revealed that students relied on different forms of campus interactions to ensure their sense of community and eventual academic success. Conclusions and policy recommendations are made to enhance students' learning environments.

Introduction

Colleges and universities are often thought of as small communal cities. Students remain at a school for a period of time and develop a relationship with his/her school. What influences help students to build a connective bond with their college? Community and sense of community have long been studied by anthropologists, social psychologists, and communication scholars (McMillan & Chavis, 1986). In fact, as Preece (2000) noted, "From birth to death, we shape and are shaped by the communities to which we belong" (p. 19). Researchers have studied various types of communities from organizational (Klein &

D'Aunno, 1986), to family (Davidson, Cotter, & Stovall, 1991), to relational (Fischer, 1982), to societal (Davidson & Cotter, 1986), to educational (Loomis, 2001) environments. With technological advancements in the recent years, namely, the Internet, scholars have begun to explore the dynamics and possibilities of a new type of organized body--the online community.

Perhaps one of the most significant impacts of computer technology on college campuses is to decentralize the learning environment. This decentralization can act to reduce students' connections with and sense of belonging to the campus. Kraut, Lundmark, Patterson, Kiesler, Mukopadhyay, and Scherlis (1998), for example, suggested such technology reduces social involvement and decreases psychological well being. Further, Madrid and Wiseman (2003) indicated that increasing use of computer-mediated communication has the potential to lead to loneliness and isolation. On the other hand, Shah, McLeod, and Yoon (2001) have argued the Internet enhances community involvement. Although online communities have become an increasingly popular area of interest, the novelty of such phenomena calls for further empirical research and educational evaluation.

This study attempts to examine a very specific type of community, namely, the college community. Research has indicated that scholars have long recognized colleges as communities. Angell (1928) identified college students as "functioning members of an organic whole" (p. 1). Collegiate communities have gained much research attention within the past decade (Loomis, 2001; Lounsbury & DeNeui, 1996; Mahan, 2000; McCarthy, Pretty, & Catano, 1990; Wells 1996). Despite the significant body of literature on communities within colleges, Lounsbury and DeNeui (1995) pointed out, "There has been scant research attention devoted to psychological sense of community of college students" (p. 270). The purpose of this research is to discover how various forms of student interaction on and involvement in the campus are related to the students' sense of community and their perceived academic success. Further, the study seeks to understand the role of students' ethnicity in the relationships between the use of different forms of interaction, sense of community, and perceived academic success.

Sense of Community Defined

Unlike the general denotation of community, which encompasses the sentiments of the whole, sense of community refers to an individual's perspective regarding the group with which they belong or associate. Sarason (1974) introduced the concept of "psychological sense of community" (PSC) and affirmed that it is a foundation for self-definition. One's psychological sense of community consists of an individual's feelings of affinity, commitment, dependence and interdependence within a group.

The historical background of PSC dates back to several German social theorists including Ferdinand Tonnies, who acknowledged an individual's perspective of community from his definitions of *gemeinschaft* and *gesellschaft*. According to Tonnies, a distinct difference existed between *gemeinschaft* (community), an intrinsic and naturally developed community and *gesellschaft* (society), a deliberately formed organization founded in logic (Keleman & Smith, 2001). Cronick (2002) further explicated the two notions of community. The first concept of "community" can be associated with "the ones that are based on the need for identity, cohesion, and solidarity within a given group" (p. 537), whereas *gesellschaft* (society) fails to acknowledge the need for human unity.

Sarason's (1974) concept of PSC was later modified by McMillan and Chavis (1986) and has been widely adopted in the psychological community. McMillan and Chavis' (1986) definition proposed four elements of sense of community. The first element is membership, namely, "a feeling of belonging or of sharing a sense of personal relatedness"(p. 9). Within this element lie five attributes which are boundaries, emotional safety, a sense of belonging and identification, personal investment and a common symbol system. McMillan and Chavis (1986) remarked that the most troublesome feature of these attributes is its boundaries. First, boundaries may generate feelings of rejection and isolation created by barriers. Second, the role of deviance from a community's boundaries has been largely overlooked. Collectively, these attributes delineate who is and is not a member of the community.

The next element of a sense of community is influence and has been posited to be bi-directional. From one perspective, group members must have some influence over what the group actions and decisions without which, they may not be motivated to participate. On the other hand, "cohesiveness is contingent upon a group's ability to influence its members" (p. 11). McMillan and Chavis addressed these contradictory issues by asserting these views motivate communities to appreciate individual differences. McMillan and Chavis (1986) proposed, "members are more attracted to a community in which they feel they are influential" (p. 12). The authors noted that it is nearly impossible to identify the numerous binding reinforcers. However, they characterized the *status* of being a member and *competence* as two chief reinforcers.

The third element of a sense of community is integration and fulfillment of needs, which simply means reinforcement. McMillan and Chavis stated, "for any group to maintain a positive sense of togetherness, the individual-group association must be rewarding for its members" (1986, p. 12). Furthermore, the authors argued that reinforcement and need fulfillment is a "primary function of a strong community" (p. 12).

The fourth element of a sense of community is shared emotional connection, which is strongly based on shared history of the group. McMillan and Chavis (1986) maintained that a shared history is not a prerequisite to a successful group, however, members must identify with it. Without this identification, members may either facilitate or inhibit the strength of the community. The shared strength of a community is conditional upon several features. The first feature, contact hypothesis, purports that the more people interact, the more likely they are to become close. The quality of interaction emphasizes that a communal bond is greater when members experience positive relationships. Closure of events addresses ambiguity within a group. The authors warned that tasks might be left unresolved if the interactions within the group are unclear. The shared valent hypothesis states that the more important the shared event is for the members, the greater the community bond will be. Investment, which is a strong indicator of shared emotional connection, determines the "importance to the member of the community's history and current status" (p. 14). The effect of honor and humiliation on community members adds to the perceived attractiveness of one to other group members.

Barriers to Building and Maintaining Community at a College Campus

Higher education institutions face challenges daily concerning its faculty, quality and resources that demonstrate the potential to divorce the student from their sense of community

with their school. It is the duty of the college to provide an active, safe and memorable learning environment so as to help students reach their educational and career goals.

Atwater, Meabon, Gosetti, and Manns (2001) addressed such threats to sense of community. The first barrier is the size of the institution. Achieving common experiences for students can be particularly challenging in a large institution. However, "common experiences are necessary to give meaning to the institution and the student's academic experience (Carnegie, 1990). Values, another hurdle, are vital to creating a culture within a college. These beliefs can impede community when "values that are espoused, such as community and collaboration, conflict with the actual lived values of the institution" (Atwater et al., 2001, p. 86). Student involvement has definite impacts on a student's experience at a college. Research by Lounsbury and DeNeui (1996) proved that involved students, such as in a fraternity or sorority have a relatively more positive school experience than that of students with low involvement. Astin (1993) also confirmed that low student involvement interferes with student community.

This low level of involvement with the campus community is often exasperated by the problems that students of different ethnicities often face. These problems include unclear career objectives (Higgerson, 1985), alienation from the university environment (Hurtado & Carter, 1997; Wessell, Engle, & Smidchens, 1985), and poor faculty-student relations (Jaasma & Koper, 1999; Pantages & Creedon, 1978). As Meeth (1972) noted, "students about to enter college have a general stereotyped and perhaps idealized image of college life which imperfectly relates to what they find. . . . Likewise, most students experience culture or value shock" (p. 7). For ethnic students who are first-generation college students, this culture shock is significant and often detrimental to their success in college.

Strategies for Improving Community Life

Lack of student involvement may hinder community progress. However, several measures can also be taken to build community, such as increasing access and diversity, developing effective retention programs, and encouraging collaboration between schools and community, and conducting assessment (Atwater et al., 2001). Five strategies have been identified to improving community life.

First, *creating a sense of community* represents a central task of leaders within a college or university, such as those in academic senate, club officers or fraternity/sorority officers. When a college increases leadership positions, it enhances "students and student groups to become more involved in the shaping of the institutional culture" (Atwater et al., 2001, p. 88). Wells (1996) indicated that leadership is most effective when it is reciprocated between leaders and followers. Creating leadership positions allows students to take ownership of their university, thereby increasing one's perceived sense of community.

Increasing access and diversity remains another strategy for maintaining sense of community. Universities are special in that they fuse students from very diverse communities together under the common goal of education. This allows for "richness of both in-and-out-of classroom experiences and discussions, increasing the potential for learning" (Atwater et al., 2001, p. 88). Colleges allow for global communities to share traditions and knowledge that can be shared, which one may not necessarily learn form everyday life.

Developing effective retention programs is crucial to the survival of any organization. Retention programs not only provide students with quality social and academic experiences, but also maintain enrollment in the university itself. It is the goal of many universities to see

their students succeed in life. The persistence of the university to help students realize their educational goals promotes the development of competent community members (Atwater et al., 2001).

Yet another tactic to build community relies on *collaborating with the community* outside of the university. Atwater et al. (2001) stated, "Campuses do not live in a vacuum; the norms and values of the surrounding community often are reflected in the institution" (p. 88). Involving the external community with campus life, demonstrates that perspectives from inside and outside the institution are valued and contribute to recognizing the importance of education.

Finally, *conducting assessment* exists as a final community builder. Assessment not only indicates if colleges are reaching their intended goals, but also affords useful information to faculty and staff concerning areas for improvement (Chafee & Sherr, 1992). Assessment drives further community research and allows institutions to refine their policies and practices to better serve the needs of the students and employees.

Influences of Sense of Community Within a College

As mentioned earlier, developing effective retention programs is one fruitful possibility to increasing a sense of community and connectedness within a college. Much research has been conducted on attrition (Johnson, 1997; Pascarella, 1980; Pascarella & Terenzini, 1979; Toy, 1985). The bulk of the research has focused on the faculty's role in student retention. The faculty facilitates sense of community the most with the students, as they are direct links to the college itself. Often students take classes from the same professor who sparked some interest in them. It is the faculty who has the most significant impact and develops some type of relationship with the students.

Thus far, the data have supported the role of faculty/student interactions. Pascarella and Terenzini (1979) analyzed informal student/teacher contact and found that interactions beyond the classroom increased the likelihood of students persisting in college rather than dropping out as freshmen. Pascarella (1980) reemphasized this notion, "evidence suggests that students' general satisfaction with college and their attitudes toward a number of specific aspects of the college experience are positively associated with the frequency of their informal, non-classroom contact with faculty members" (p.551). It is such interactions that promote sense of community. Likewise, research suggests, "informal student/faculty interaction does, in fact, accentuate faculty influence on student intellectual and creative development" (p. 553). Beal and Noel (1979) offered the most persuasive evidence in their research which named the faculty and staff the most influential among positive factors associated with retention.

Supplemental to faculty interactions are that of relationships developed with peers. Student/student contact may also facilitate sense of community. Numerous studies, including that of Pascarella (1980) insinuated that a positive relationship dwells among peers, which in turn influences their college life. Pascarella (1980) explained, "student-culture experiences influence a student's career aspirations, academic performance, personality development, and persistence in college" (p.563). Student contact must be strongly considered when discussing sense of community, for it is peers who directly relate to college ups and downs. Faculty guide students with their educational plans in a specific department, but students must be familiar with the overall workings of the university system.

Given this review of the literature on a campus' sense of community and possible interrelationships between that sense of community, student outcomes, and contributing

factors, this study explored the nature and dynamics of one campus' sense of community. Four research questions motivated the present study:

RQ_1: What differences were there in students' sense of community due to their ethnicity, academic major, and class level?

In other words, were certain groups particularly alienated or accepted into the campus community? Answers to this research question could assist in focusing the campus' efforts at integrating all groups into the campus and thereby help enhance all students' academic achievement and sense of belonging.

RQ_2: What are the relationships between students' sense of community and different forms of student involvement/interaction on campus?

Do the various forms of student involvement on campus make a difference in terms of the student's sense of community? For example, is there a difference in whether the student chooses to interact with fellow students, with faculty members, with administrators (e.g., student services), or with the computer system?

RQ_3: What are the relationships between students' academic outcomes and their sense of community and forms of involvement/interaction on the campus?

Does sense of community predict academic benefits? Does sense of community mediate students' activities and their eventual success in school? Or, on the other hand, do various forms of student involvement/interaction contribute to students' academic success apart from the students' sense of community?

RQ_4: What differences are there for European-American, Latino-American, and Asian-American students in the interrelationships of sense of community, forms of interaction on the college campus, and perceived academic success?

Given the different needs and cultural experiences of students, do students of different ethnic groups rely on different forms of interactions in developing a sense of community with their campus? Further, are there differences among the ethnic students in the relationship between their sense of community and their perceived academic success?

METHODS

Participants

A total of 308 students at a west coast university volunteered to participate in the survey. Of the 305 reporting, 186 (60.1%) were female and 119 (38.3%) were male. This gender breakdown is consistent with the university's demography. In terms of their class level, 174 (56.2%) were freshmen, 55 (17.5%) were sophomores, 46 (14.6%) were juniors, 31 (9.7%) were seniors, and 2 (.6%) were graduate students. As for their ethnicity, 123 (44.1%) were European-American, 71 (25.4%) were Latino-American, 58 (20.8%) were Asian-American, 12 (4.3%) were African-American, 12 (4.3%) were Middle-Eastern-American, and 32 chose not to report their ethnicity. Of the 302 responding, 239 (79.1%) noted that they entered the university as freshmen, while 62 (20.5%) indicated that they were transfer students. As students, the average number of units being taken was 13.4 (sd = 3.9). Finally, consistent with the commuter nature of the campus, 216 (70.8%) students reported that they were employed, with jobs entailing an average of 16.8 hours a week (sd = 13.5).

Measures

Measures were needed for the main variables of the study, namely, a sense of community, forms of student involvement in the campus, and students' evaluations of the campus learning climate.

Sense of Community. The 12 items operationalizing students' sense of community were adapted from McMillan and Chavis' (1986) Sense of Community Index. The McMillan and Chavis index measured an individual's membership in, influence by, need reinforcement of, and emotional connectedness to a geographical area (e.g., block, neighborhood, city). The items were adapted to reflect the study's focus on the university. The adapted items were rated on a four-point scale, where 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree. An inter-item reliability analysis of the 12 items indicated a moderately high level of reliability ($\alpha = .76$), allowing the items to be summed into a composite such that the larger the value, the greater the sense of community with the campus.

Forms of Student Involvement. Based upon a review of the literature on forms of student involvement in a university campus and upon the results from a focus group involving 18 graduate students, 16 items were generated to reflect various forms of student involvement in the campus. The items were rated on a four-point scale, where 1 = never, 2 = rarely, 3 = sometimes, and 4 = often. A factor analysis was computed on the items. A scree test indicated that there were three underlying dimensions. These three dimensions were extracted using Principal Component Analysis and rotated for clarity via Varimax with Kaiser Normalization.

Factor 1 accounted for 24.7% of the total variance in the items, had an eigenvalue of 4.0, and was primarily defined (i.e., a factor loading greater than .40) by six items. These six items with high loadings on Factor 1 were: participation in student clubs, attendance at special university events, participation in student government, involvement in sports, participation in sorority/fraternity functions, and involvement in extracurricular activities. These six items all entailed student-to-student interactions and involvement. Thus, this factor was labeled, *interaction with students*.

Factor 2 accounted for 11.7% of the total variance in the 16 items, had an eigenvalue of 1.9, and was primarily defined by four items. These four items were: talking with teachers outside of class, visiting teachers during their office hours, using student services (e.g., advisement), and working with study groups for classes. For the most part, these items reflect interaction with faculty members outside their classrooms. Thus, this factor was labeled, *interaction with faculty*.

Factor 3 accounted for 7.4% of the total variance in the 16 items, had an eigenvalue of 1.2, and was primarily defined by five items. These five items were: reading the student newspaper, using the student web portal, using campus computer terminals, dining at campus eateries, and remaining on campus after classes. These items reflect involvement with campus resources and media. Thus, this factor was labeled, *involvement with campus resources*. For each of the three factors, factor scores were produced for each participant using a regression method. The factor scores were computed such that the larger the value on the factor score, the greater the trait labeled by the factor.

Educational Benefits. Three items were constructed to assess the perceived benefits the student may accrue from their education at the campus. These items were: providing a good education, having good teachers, and improving the student socially as well as educationally. These items were rated on a four-point Likert scale where 1 = strongly disagree,

2 = disagree, 3 = agree, and 4 = strongly agree. An inter-item reliability analysis indicated that there was a sufficient level of reliability ($\alpha = .63$). These three items were summed such that the larger the value on the composite variable, the greater the perceived benefits from the campus.

Data Analysis

To assess the interrelationships among the variables, a structural equations analysis was performed. It was posited that the three forms of student involvement predict a student's sense of community, which, in turn, predicts campus benefits. To determine whether the student's sense of community acts as a mediating variable, alternative path analytic models will be computed to ascertain if independent relationships between forms of involvement and campus benefits improves the fit of the model to the observed data.

RESULTS

Group Differences

A number of statistical procedures were computed to determine whether there were any systematic differences in students' sense of community due to group memberships. For the most part, there was uniformity in students' sense of community with the campus. There were no significant differences in sense of community due to gender (Male mean = 2.77, Female mean = 2.76, $t = .2$, $df = 301$, *n.s.*), transfer student status (transfers from the community college = 2.81, students who entered as frosh = 2.76, $t = 1.2$, $df = 299$, *n.s.*), academic major (F [9/291] = 1.0, *n.s.*), and ethnicity (Asian-American = 2.67, African-American = 2.89, Euro-American = 2.80, Latino-American = 2.78, and Middle Eastern-American = 2.68, F [4/274] = 1.9, *n.s.*). Further, there were no significant correlations between sense of community and number of hours employed ($r = .10$, *n.s.*) or number of units taken ($r = -.01$, *n.s.*). The only two group differences in students' sense of community found to be significant were the students' grade level (Frosh = 2.73, Soph = 2.73, Junior = 2.85, Senior = 2.94, and Grad = 2.71; F [4/299] = 3.4, $p < .01$) and employment status (employed = 2.81, unemployed = 2.66; $t = 3.3$, $df = 301$, $p < .001$). In terms of grade level, it appears that as students advance in grade level, their sense of community on the campus increases. As for employment status, paradoxically, employed students seem to have a greater sense of community with the campus than unemployed students.

Correlations

Table 1 presents the intercorrelations for the five main variables of the study, namely, educational benefits, sense of community, interaction with students, interaction with faculty, and campus involvement. For sense of community, all three of the forms of interaction (student, faculty, and campus) were significantly and positively correlated. The highest correlation between interaction contexts and sense of community was for the campus ($r = .39$, $p < .01$), next was for faculty interaction ($r = .23$, $p < .01$), and finally was for students ($r = .13$, $p < .05$). For the variable educational benefits, three of the four other variables were significantly and positively correlated. The highest correlation with educational benefits was found for sense of community ($r = .56$, $p < .001$), followed by campus involvement ($r = .28$, $p < .01$), and interaction with faculty ($r = .23$, $p < .01$). The correlation between educational benefits and interaction with students was not statistically significant ($r = .06$, *n.s.*). These

bivariate correlations are informative, however they do not help us understand the multivariate character of the data. Path analysis, or structural equations analysis, provides a more systematic examination of the data.

Table 4
Intercorrelations among Variables

Educational Benefits	1.00				
Sense of Community	.56**	1.00			
Interaction with Students	.06	.13*	1.00		
Interaction with Faculty	.23**	.23**	-.01	1.00	
Campus Involvement	.28**	.39**	-.02	-.01	1.00
Means	3.16	2.76	.00	.00	.00
Standard Deviations	.39	.34	1.00	.99	1.00
	1	2	3	4	5

* $p < .05$
** $p < .01$

Path Analysis

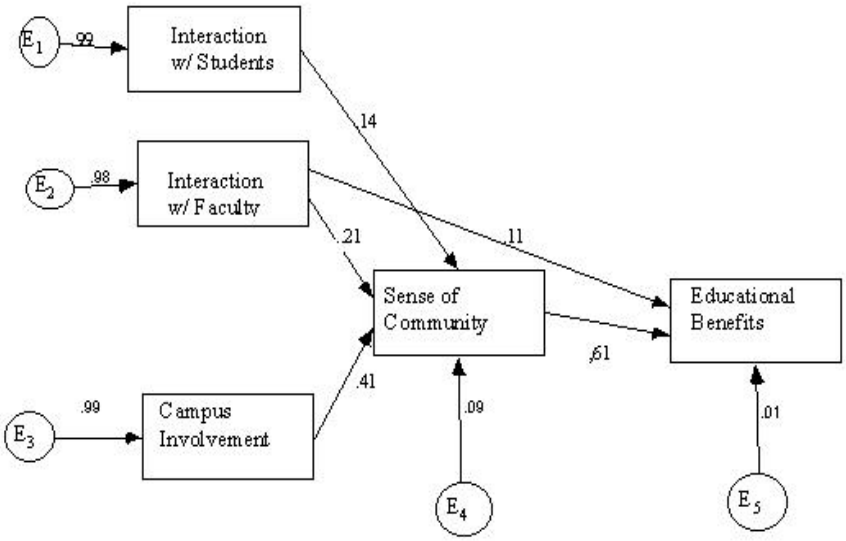
Path analysis examines the direct and indirect relationships among multiple variables, that is, whether the relationships between variables are independent of or mediated by some other variable in the system. Path analysis also allows you to test the merits of different models in terms of their fit of the observed data. To determine a particular model's fit of the data, there are a number of statistics computed, namely, chi-squared, the Goodness-of-Fit Index (GFI), and the Root Mean-square Residual (RMR).

We first posited that a sense of community would mediate the relationships between interaction contexts and educational benefits. This model proved to be a fair fit of the observed data ($X^2 = 6.78$, $df = 6$, ratio of chi-squared to df = 1.13, GFI = .994, RMR = .079). This would suggest that sense of community may act in a mediating role between the forms of student involvement on campus and eventual success in school. In examining the other possible models (i.e., ones that allow direct effects between forms of involvement and educational benefits), one model proved significantly better. More specifically, the fit of the data was significantly improved when a direct path between faculty interaction and educational benefits was added (difference in $X^2 = 4.22$, $df_{diff} = 1$, $p < .05$). This model proved to be an excellent fit of the data ($X^2 = 2.56$, $df = 5$, chi-squared to df ratio = .511, GFI = .997, RMR = .054), suggesting that interaction with faculty not only facilitates a sense of community but may also enhance a student's academic success apart from an enhanced sense of community. This model and its path coefficients are presented in Figure 1. In terms of the second research question motivating this study, some insights are gained in our understanding of students' sense of community with the campus. First and foremost, to the extent that the students found sources of involvement on the campus (e.g., using the campus web portal, reading the newspaper, using computers at the library, dining on campus), they had a higher sense of community with the campus ($P = .41$, $t = 7.85$, $p < .0001$). Second, interaction with faculty members was also perceived to be positively associated with students' sense of community with the campus ($P = .21$, $t = 4.70$, $p < .0001$), suggesting that if students visit

faculty in their offices and engage in communication with faculty outside of the classroom, they will tend to have higher levels of belonging to the campus. Finally, student-student interaction was also positively related to students' sense of community with the campus (*P*

Figure 1

Final Path Model



= .14, $t = 2.72$, $p < .01$), although to a much lesser extent than that found with campus-student involvements or faculty-student interaction.

The third research question inquired into the interrelationships among students' educational benefits, their sense of community with the campus, and their interactions/ involvements within the campus. As reflected in Figure 1, the strongest relationship was found between students' educational benefits and their sense of community ($P = .61$, $t = 11.1$, $p < .00001$), suggesting a strong relationship between students' sense of belonging and community and their perceived academic success. The only other unmediated variable having a relationship with students' educational benefits was their interaction with faculty ($P = .11$, $t = 2.51$, $p < .01$), indicating that an relationship between students' educational benefits and faculty interaction *independent of* the students' sense of community. It would appear that a student's interaction with faculty may serve to encourage a sense of belonging and community, and may serve as a motivating and career-clarifying function as well.

Ethnicity and Sense of Community, Interaction, and Academic Success

The fourth research question focused on the possible differences between students' ethnicity, their forms of interaction, sense of community, and perceived academic success. Given the fewer numbers of African-American and Mid-Eastern-American students in the sample, the analysis included only the European-American, Latino-American, and Asian-American student groups. Two sets of multiple regressions were computed for each of these three groups: one predicting academic success and another predicting sense of community. The results are presented in Table 2. In terms of the prediction of academic success, sense of community was the most significant predictor of academic success for all three ethnic groups. For both Asian-American and European-American students, no other variable was a significant predictor of academic success, however for the Latino-American students the interactions with faculty and with campus resources were significant predictors (β's = .331 and .259, respectively). Finally, for all three ethnic groups, student-student interaction was not a significant predictor of academic success. In terms of the prediction of sense of community, all three ethnic groups reported a significant relationship between sense of community and interactions with campus resources. For Asian-American and Latino-American students, no other variable was significantly related to sense of community. Finally, for European-American students, there were significant relationships between sense of community and student-student and faculty-student interactions (β's = .229 and .335, respectively).

Table 5
Regression Coefficients for Three Ethnic Groups

Predicting Academic Success	Asian-Am	Euro-Am	Latino-Am
Sense of Community	.516**	.579**	.435**
Student Interaction	.090	-.008	.008
Faculty Interaction	-.029	.018	.331*
Campus Interaction	.158	-.104	.259*
Predicting Sense of Community			
Student Interaction	.136	.229*	.003
Faculty Interaction	.188	.335*	.028
Campus Interaction	.473**	.365*	.411**

* $p < .01$
** $p < .001$

DISCUSSION

This study examined the nature and dynamics of students' sense of community at a commuter college campus. The first research question addressed what differences there were in students' sense of community due to their ethnicity, academic major, and class level. The second research question dealt with the relationships between students' sense of community and different forms of student involvement/interaction on campus. The final research question was looking at the relationships between students' academic outcomes and their sense of community and forms of involvement/interaction on campus.

For the first research question entailed an examination of whether gender, ethnicity, class level, employment status, and academic major were related to students' sense of community. Our findings indicated that no significant differences of students' sense of community for gender, ethnicity, employment status, or academic major. However, there was a significant difference in students' sense of community due to their class level. We found that the higher the class level the more involved the student.

The findings for the second research question indicated that students' sense of community was significantly related to all three of the forms of interaction (student, faculty, campus). The results showed the strongest correlation for sense of community and involvement in campus resources (e.g., use of computers). This indicates that the more a student utilizes campus resources the more connected to the university the student will feel. This supports the contention that use of computer technology or web portal gives students a stronger sense of community. The students may feel more connected to the university because of the fact that they rely on the resources. The next strongest correlation was the faculty interaction.

Faculty interaction was unique in that it not only affected the students' sense of community, but also directly affected the students' educational benefits. This finding suggests that faculty play an important part in students' sense of community *and* their academic success. Interaction with faculty may give a student a connection to the college. This explains why students often take several courses with the same professor or select a specific professor to be their academic advisor/mentor. The student may feel more connected to the university, by continuing the relationship with the professor. The faculty interaction also directly affects a student's success. This indicates that faculty plays an important role in students' educational benefits as illustrated in Figure 1. These results are an extension of the findings of Pascarella and Terenzini (1979), Pascarella (1980), and Beal and Noel (1979).

Student interaction was found to be the least correlated. Although student interaction was the least correlated of the three it was still significant and positively correlated. This shows that students who interact with other students feel a stronger sense of community. Perhaps, students interact with other students for non-academic reasons, such as social or extracurricular (fraternity/sorority) ones. These students may have social needs or goals that are met through the participation in such campus activities. Lounsbury and DeNeui (1996) concluded that members of a fraternity or sorority had a higher sense of community than nonmembers.

The third research question looked at the students' educational benefits. The study examined whether variables, including sense of community, influenced the educational benefits of the students. The results show that campus involvement and student interaction had no direct relationship to educational benefits, apart from their influence on students' sense of community. This does not mean that campus involvement and student interaction had no effect on educational benefits. On the contrary, the results of this study show that they affect the students' sense of community, which in turn influences the students' educational benefits. Whereas campus involvement and student interaction did not directly affect educational benefits, interaction with faculty did directly influence the students' educational benefits. The strongest influence on the students' educational benefits was the students' sense of community. This indicates that the more connected to the college that a student feels the more they benefit educationally. This should encourage schools to try to develop a stronger sense of community within their student population.

The fourth research question inquired into the possible differences among Asian-American, European-American, and Latino-American students' sense of community, forms of interaction, and perceived academic success. Similarities and differences for the three groups were revealed. For all three groups a sense of community was significantly related to perceived academic success. As noted above, this is consistent with a number of studies on student success in academia (e.g., Johnson, 1997). Further, as opposed to European-American and Asian-American students, for Latino-American students academic success was also significantly related to faculty-student and campus-related interactions. This may be due to the possibility that Latino-American students tend to be first-generation college students and may suffer for greater alienation from the campus. In this sense, these forms of interaction help enhance their career clarity, motivation for persistence, and learning skills (Grandy, 1998; Henderson, 2000). For Asian-American and European-American students, no form of interaction was significantly related to their perceived academic success. It would seem that Asian-American and European-American students were more self-motivated and had clearer career aspirations (Gillock, 1999; Sandler, 1998).

In terms of students' sense of community, for European-American students all three forms of interaction were significantly related to their sense of community; however, for Asian-American and Latino-American students, only the students' use of campus resources were related to sense of community. Chatman (2002) suggested one explanation for these findings may be in the ease of developing as attachment to the campus. To the extent that the environment is incongruent with their past and the expectations based on the past, students will have a more difficult time adjusting to the campus and thus developing a sense of community. Given the European-American orientation of the campus, it may be that European-American students are able to form stronger attachments, while Asian-American and Latino-American students found the experience more incongruous with their past backgrounds and thus developed weaker attachments based upon their interactions.

Finally, one of the findings that we found to be surprising was the fact that students who worked had a stronger sense of community than those who did not work. Our first thought was that students who work would not have the time, nor the inclination, to be as involved in campus activities, and therefore they would not have as strong a sense of community. Our results showed the opposite to be true. One possible explanation was the fact that students who work may have a stronger work ethic, and therefore be more inclined to try to be involved in the campus community. We also felt that the students who work may want to take advantage of the opportunities available at the school, because they may have to pay for educational expenses themselves. This may make the students appreciate the opportunity more and not take it for granted. They may also realize the value of being involved in an organization because of their involvement at work. The final possible explanation was that the students who work may be older students who are returning to school and have different motivations for being there.

Future research can do many things. As we said before we need a solid definition of what a commuter school is. It is also important to study how use of the computer or web portal affects feelings of community, and how increased computer use will affect a school's community. It would also be important to study different variables in depth. It would also be important to look at why faculty has the strongest influence on students' sense of community.

The next suggestion for future research is to attempt to find out why faculty has the strongest influence on students' sense of community. This is important because insight into

how faculty affects the students can lead to two benefits. First, knowledge as to how the faculty help students do well may assist the faculty to do the best job possible. Kuh (2001) suggested that faculty interaction is less than what is considered optimal. This means that faculty can be doing more. The second benefit would be that by finding out how faculty helps the students may help us learn how to increase the effects of other variables, such as campus involvement. By learning the benefits of faculty involvement we may be able to extend the benefits to other areas.

The final suggestion for future research is to look at how faculty can increase their affects. Perhaps class requirements may allow students a chance to be more involved on campus. Future research can look at assignments such as service learning, which requires students to volunteer time, affect students sense of community. This is supported by Kuh (2001) who noted that students are becoming increasingly more involved in community service and/or volunteer work.

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