

EXAMINING THE RELATIONSHIP BETWEEN STUDENTS' PERCEIVED SENSE OF CAMPUS COMMUNITY AND SATISFACTION WITH SCHOOL LIFE

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Based on Boyer's (1990) principles of community, the purpose of this study was to examine how students' perceived sense of campus community contributed to explaining their satisfaction with school life. Participants were randomly selected from a student email address list obtained by the Office of Assessment at a mid-size university in the Midwest and were sent an electronic mail message inviting them to participate in the study by completing an on-line questionnaire. Three hundred and thirty students answered a 25-item sense of campus community scale developed by Cheng (2004), who had adopted some questions from Janosik's (1991) Campus Community Scale and the Brief Multidimensional Student's Life Satisfaction Scale (Zullig et al., 2005). Multiple regression used six factors from the sense of campus community scale (Teaching and Learning, Residential Experience, Diversity and Acceptance, History and Tradition, Loneliness and Stress, and Socialization Across Backgrounds) to predict satisfaction with school life. The overall regression equation was significant ($F=38.20, p<.001$) and the linear combination of predictor variables explained 45.6% of the variance in students' satisfaction with their school life. The article also discusses implications of these findings for student affairs practitioners and suggestions for future research in the context of the limitations of the study.

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A wide variety of factors influence college students' satisfaction with their student experience on a college campus including, but not limited to, their academic experience based on the courses they take and professors with whom they interact, their out-of-class involvement, and their social experiences and support group they develop while on campus. Many of the factors influencing satisfaction relate to the perceived sense of campus community that a student may develop during their student experience. According to Boyer (1990), a university may provide a strong sense of campus community if it is effective in being educationally purposeful, open, just, disciplined, caring, and celebrative. These characteristics influence students' satisfaction with their college experience. Colleges and universities must place focus on developing a sense of community on campus in order to retain and provide satisfying student experiences.

Literature Review

Students can develop a sense of community in multiple ways on college campuses. Student involvement and engagement in educationally purposeful activities is essential in developing a sense of campus community (Kinzie & Schuh, 2008). Often, sense of community develops through the academic enterprise (Fink & Hummel, 2015). Additionally, the use of high-impact practices, such as collaborative assignments or service/community based learning, develops a sense of community through activities outside the classroom (Kuh, 2008). Elkins, Forrester, and Noel-Elkins (2010) found that students who participated regularly in campus activities perceived a significantly higher sense of campus community. Regardless the venue through which students develop or institutions try to provide the sense of community, the importance of a strong campus community is well established. Boyer (1990) recognized the importance of establishing a sense of campus community to impart positive influences on

such important issues as campus crime and race relations. Since Boyer's milestone publication, additional research has reinforced the benefits of a strong campus community including potentially a positive impact on retention (Bailey, Bauman & Lata, 1998). According to Tinto (1993), integration into social and academic life for students contributes to a strong sense of commitment to a university which contributes to retention. In his work on student attrition, Tinto stated that persistence is a process of students becoming members of social and academic communities. In order for institutions of higher education to successfully build a sense of campus community, connections must exist between academic and out-of-class activities to aid in both retention and student satisfaction.

An important component to student success and persistence in college is the satisfaction of the students with college life. Thomas & Galambos (2002) found that social integration is one of the most important factors contributing to student satisfaction. In Astin's (1993) landmark study of more than 20,000 students, 25,000 faculty members, and 200 institutions of how students change and develop in college, he found "the environmental variable with the strongest negative effect on overall satisfaction (with college) is Lack of Student Community" (p.279).

Many factors affect a students' ability to persist and maintain satisfaction with college, including stress management resources. Ross, Neibling, and Heckert (1999), suggested universities need stress-intervention programs for students to maintain satisfaction with college. Many environmental, interpersonal and intrapersonal factors, such as roommate conflicts, changes in sleeping habits, and academic workloads can contribute to negative student satisfaction and universities need programs and services in place to combat these stressors. Participation in co-curricular activities provide valuable opportunities to make friends, become more familiar to campus, get to know faculty

and resources on campus, and help alleviate stress while increasing satisfaction. According to Light (1990), increased involvement in campus activities was significantly associated with high levels of satisfaction and academic success.

While both areas of research - campus community and student satisfaction/success - are well established, few research studies make a direct connection between establishing a strong campus community and student success. Research exists related to student satisfaction and limited research has examined contributing factors to a perceived sense of campus community, but no research examines the relationship of perceived sense of campus community and student satisfaction. The purpose of this study was to examine how students' perceived sense of campus community contributes to their satisfaction with school life.

Methods

Participants

The researchers recruited participants from a student email address list obtained by the Office of Assessment at a mid-size university in the Midwest. Stratified random sampling, based on year in school, was used to invite students via email to participate in the study. This email included a link to the informed consent website through Baseline - a leading assessment provider to higher education institutions. Students were entered into a drawing for an opportunity to win one of five \$20 gift cards from Best Buy if they completed the survey in its entirety. A reminder email message was sent to all participants who had not responded to the survey one and two weeks after the initial invitation to participate was sent

Measures and Procedure

Participants completed an on-line questionnaire which consisted of demographic questions, questions related to their out-of-class involvement in 14 areas as identified by the institutions' Division of Student Af-

fairs, a 25-item sense of community scale developed by Cheng (2004), who had adopted some questions from Janosik's (1991) Campus Community Scale, "one of the very few comprehensive instruments based on Boyer's principles" (Cheng, p. 220), and the Brief Multidimensional Student's Life Satisfaction Scale (BMSLSS) (Zullig et al., 2005). Respondents rated their level of agreement to the campus community statements using a four point Likert scale ranging from "strongly disagree" to "strongly agree". The question "I would describe my satisfaction with school life as" was taken from the BMSLSS and used as the dependent variable. This variable was measured using a six point Likert scale ranging from: 1= terrible, 2= Unhappy, 3= Mostly Dissatisfied, 4= Mixed (about equally satisfied and dissatisfied), 5= Mostly Satisfied, and 6= Delighted.

Analysis

Exploratory factor analysis (EFA) was conducted to examine the underlying factor structure of the sense of community scale. The sense of community factors stemming from the EFA were then used as independent variables in a multiple regression analysis to examine their relationship with student's school life satisfaction.

Results

Three hundred and thirty surveys were completed. There were 232 females (70.3%) and 98 males (29.7%). Respondents had a mean age of 21.84 years ($SD=5.0$) with 209 students living off-campus (63.3%) and 121 students living on-campus (36.7%). There were 47 freshmen (14.2%), 68 sophomores (20.6%), 73 juniors (22.1%), 89 seniors (27.0%), and 49 graduate students (14.8%). The sample was predominantly Caucasian (83.6%) and fairly proportionally distributed across the colleges within the university with 32.7% of the respondents coming from the College of Arts and Sciences, 20.6% from the College of Education, 17.6% from the College of Applied Science

and Technology, 13.9% from the College of Business, 7.6% from the University College (undeclared), 3.6% from the College of Fine Arts, and 3.9% indicated "Other". When compared to the broader student population, the sample in this study consisted of

more females (70% vs. 55%), less freshman (14% vs. 25%), and more students identifying as Caucasion (83.6% vs. 74%).

An exploratory factor analysis (EFA) was used to examine the underlying factor structure of the 25 statements from the sense of

Item	M (SD)	Skewness	Kurtosis
Students care about each other	2.97 (.49)	-.52	2.93
I feel valued as a person at this institution	3.03 (.56)	-.29	1.49
I feel accepted as part of the campus community	3.12 (.67)	-1.01	2.52
Faculty care about students	3.10 (.62)	-.73	2.21
Programs effectively foster positive relationships among different cultural communities	3.00 (.58)	-.56	2.12
Living in residence halls has raised my awareness of campus resources	2.89 (.86)	-.57	-.15
The institution's traditions and celebrations play an important role in my life as a student	2.56 (.76)	-.03	-0.32
I have felt lonely on campus	2.08 (.93)	+.43	-0.76
My experience living in residence halls has been/was positive	2.91 (.80)	-.59	0.21
There is/was opportunity to interact with other people in your residence hall	3.19 (.79)	-.91	0.74
Different cultural communities participate in each other's events	2.61 (.63)	-.33	0.03
RAs help/helped to lead the community in my residence halls	2.78 (.81)	-.51	-0.001
There is an environment for free and open expression of ideas/opinions/beliefs	2.97 (.63)	-.63	1.62
I am satisfied with the range of extracurricular activities and programs	3.11 (.64)	-.50	1.02
Students and faculty are engaged in teaching and learning	3.07 (.49)	-.29	3.34
Faculty are accessible to me when I seek their help	3.21 (.63)	-.62	1.45
There are opportunities to interact with people from different backgrounds	3.17 (.60)	-.33	0.87
I am/was satisfied with the programs and activities in the residence halls	2.74 (.69)	-.44	0.34
There is a clear sense of appropriate and inappropriate behavior	2.95 (.74)	-.58	0.50
I would seek/sought the assistance of Residential Program staff in case of an emergency	2.90 (.83)	-.76	0.37
I am proud of this institution's history and heritage	3.14 (.57)	-.28	1.24
Friends share my interests and values	3.26 (.69)	-.88	1.41
I am satisfied with the overall quality of instruction	3.05 (.54)	-.29	1.85
I often felt under a lot of stress during my time at this institution	2.89 (.77)	-.40	-0.03
My social interactions are largely confined to students of my race/ethnicity	2.47 (.80)	-.20	-0.45

Note: 1-strongly disagree, 4-strongly agree

campus community scale. All 330 subjects who completed this section of the survey were included in the EFA which provided a good to very good sample size for factor analysis (Comry & Lee, 1992). A principle components extraction method was used in conjunction with a varimax rotation as all 25 statements were fairly normally distributed (see Table 1). This procedure is recommended when using data that meets multivariate

Factor and Items	Factor Loading
1. Teaching and Learning (eigenvalue = 5.96)	
I feel valued as a person at this institution	.54
Faculty care about students	.80
Students and faculty are engaged in teaching and learning	.78
Faculty are accessible to me when I seek their help	.76
I am satisfied with the overall quality of instruction	.62
2. Residential Experience (eigenvalue = 2.91)	
Living in residence halls has raised my awareness of campus resources	.75
My experience living in residence halls has been/was positive	.80
There is/was opportunity to interact with other people in your residence hall	.79
RAs help/helped to lead the community in my residence halls	.65
I am/was satisfied with the programs and activities in the residence halls	.77
3. Diversity and Acceptance (eigenvalue = 1.60)	
Programs effectively foster positive relationships among different cultural communities	.50
There is an environment for free and open expression of ideas/opinions/beliefs	.65
There is a clear sense of appropriate and inappropriate behavior	.55
Friends share my interests and values	.62
4. History and Tradition (eigenvalue = 1.48)	
Students care about each other	.54
The institution's traditions and celebrations play an important role	.61
I am proud of this institution's history and heritage	.67
5. Loneliness and Stress (eigenvalue = 1.20)	
I have felt lonely on campus	.65
I often felt under a lot of stress during my time at this institution	.81
6. Socialization Across Backgrounds (eigenvalue = 1.03)	
Different cultural communities participate in each other's events	.69
There are opportunities to interact with people from different backgrounds	.58
My social interactions are largely confined to students of my own race/ethnicity	.60

Table 3
Intercorrelations Between Sense of Community Variables and Satisfaction with School Life

Variables	1	2	3	4	5	6	7
1. Teaching and Learning	---	.167*	.426*	.481*	-.176*	.216*	.598*
2. Residential Experience		---	.328*	.367*	-.022	.103	.180*
3. Diversity and Acceptance			---	.434*	-.166*	.214*	.313*
4. History and Tradition				---	-.225*	.221*	.450*
5. Loneliness and Stress					---	-.085	-.322*
6. Socializing Across Backgrounds						---	-.002
7. Satisfaction with School Life							---

* $p < .01$

normality (Fabrigar, Wegener, MacCallum, & Strahan, 1999). In order to minimize the likelihood of items cross-loading and also to ensure that weak items were removed, a factor loading cut-off of .50 was used. The EFA resulted in a six-factor solution all with eigenvalues greater than 1.0 and included 22 of the 25 statements and accounted for 56.69 percent of the variance (see Table 2). The statement "I feel accepted as part of the campus community" loaded on more than one factor. Two statements, "I am satisfied with the range of extracurricular activities and programs" and "I would seek/sought the assistance of Residential Program staff in case of an emergency" failed to reach the established loading criterion.

The first two factors, labeled Teaching and Learning, and Residential Experience both contained five items and the third factor, termed Diversity and Acceptance, included four items. The fourth factor, labeled History and Tradition, contained three items and the fifth factor, labeled Loneliness and Stress, consisted of only two items. The last factor, titled Socialization Across Backgrounds, contained three items. Item loadings ranged from the cut-off of .50 to .81 and appear to represent six independent underlying dimensions of students' sense of campus community.

Multiple regression was used to ana-

lyze the relationship between the six factors from the sense of campus community scale (Teaching and Learning, Residential Experience, Diversity and Acceptance, History and Tradition, Loneliness and Stress, and Socialization Across Backgrounds) and the outcome variable (students' satisfaction with their school life). Analysis of univariate statistics for the predictor variables and plots of the distribution of these variables indicated assumptions of normality were met for all variables. Furthermore, plots of the predicted values of the outcome variable against the residuals appear to conform to the assumptions of normality, linearity, and homoscedasticity. Lastly, Pearson's correlation coefficients between the predictor variables (see Table 3) revealed no statistical problems created by multicollinearity, as there were no zero-order correlations between any two predictor variables greater than 0.90 (Tabachnik & Fidell, 1996).

The overall regression equation ($y' = 0.513x_1$ (Teaching and Learning) + $0.039x_2$ (Residential Experience) - $0.003x_3$ (Diversity and Acceptance) + $0.188x_4$ (History and Tradition) - $0.198x_5$ (Loneliness and Stress) - $0.198x_6$ (Socializing Across Backgrounds) + 1.949) was significant ($F = 38.20$, $p < .001$). The overall adjusted R^2 was 0.456, indicating that the linear combination of the six campus community factors accounted

Variables	B	SEB	β	t	Sig.
Constant 1.949	.459		4.248	<.001	
1. Teaching and Learning	.201	.021	.513	9.472	<.001
2. Residential Experience	.011	.015	.039	.774	.440
3. Diversity and Acceptance	-.002	.030	-.003	-.055	.956
4. History and Tradition	.124	.038	.188	3.261	.001
5. Loneliness and Stress	-.128	.030	-.198	-4.207	<.001
6. Socializing Across Backgrounds	-.123	.031	-.184	-3.915	<.001

Note: R=.684, R²=.469, Adjusted R²=.456; F=38.20, p<.001

for, or explained, 45.6% of the variance in the students' satisfaction with their school life. The significant predictors in order of their strength of prediction were 'Teaching and Learning' ($t = 9.47$, $\beta = .513$, $p < .001$), 'Loneliness and Stress' ($t = -4.21$, $\beta = -.198$, $p < .001$) 'History and Tradition' ($t = 3.26$, $\beta = .188$, $p = .001$), and 'Socialization Across Backgrounds' ($t = -3.92$, $\beta = -.184$, $p < .001$) sub-scales (see Table 4).

Discussion and Implications

Maintaining student satisfaction with college is critical for all university personnel. Being aware of the numerous factors that may positively or negatively influence the student experience is imperative to meet enrollment goals and to maintain high retention rates. In addition, providing appropriate and fulfilling out of class activities on campus is important to both building a sense of campus community and providing satisfying experiences while in college. The four sense of community factors that contributed to satisfaction in this study included teaching and learning, loneliness and stress, history and tradition, and socialization across backgrounds.

Teaching and learning

The results of the study identified that

"teaching and learning" contributed to student satisfaction are well documented in previous research (Komarraju, Musulkin, & Bhattacharya, 2010; Jaasma & Koper, 1999; Myers, 2004; Martin, Myers & Mottet, 1999; Wolf-Wendel, Ward & Kinzie, 2009). Komarraju et al. found that students successfully connecting closely with just one faculty member were more likely to feel more satisfied with their college life. According to Elliott (2002), student-to-faculty ratios, teaching quality, and faculty credentials had a positive influence on student satisfaction. Further Cheng (2002) found that students and faculty having a shared commitment to learning was the most important factor in building a sense of community. In a study conducted by Thomas and Galambos (2002), the authors suggested that academic experiences in college along with social integration were the strongest predictors of student satisfaction. Finally, Tinto (1993) suggested that students with low levels of satisfaction reported low academic performance.

Loneliness and stress

Cheng (2004) examined the aspects of students' lives to identify items contributing to their sense of community and found that students' sense of being cared about, val-

ued as an individual, and accepted as part of the community were most directly associated with a sense of community. The most negative influence on the sense of community came from feelings of loneliness. Other studies acknowledge that loneliness can have a negative impact on college students' satisfaction in everything from a lower positive response to flu vaccines (Pressman, et al 2005) to suicidal ideation (Lamis, Ballard, & Patel, 2014). Ishitani (2016) found while academic integration is important in persistence from the first to second year, the importance of academic integration does not hold true for continued persistence, perhaps suggesting the importance of social integration. With an abrupt transition from high school to college, students experience negative states such as loneliness, nervousness, and worry; a student not able to cope with such stress could make it difficult to experience satisfaction (Lee & Jang, 2015).

History and tradition

Given that traditions have long played an important role on college campuses in building community, connecting students with the heritage of their institution, and developing institutional pride (Van Jura, 2010), it should not come as a surprise that the History and Tradition factor from the Sense of Community Scale significantly predicted students' satisfaction with their school life in this study. One item from this factor (I am proud of this institution's history and heritage) had the fifth highest mean score from the 25-item scale. History and Tradition was also the third strongest predictor of students' satisfaction with their school life, only behind 'Teaching and Learning' and 'Loneliness and Stress'. In fact, the History and Tradition sub-scale is the only factor significantly correlated to all other factors from the Sense of Community Scale thereby demonstrating its relationship with other areas of campus community, further underscoring its importance to students' satisfaction with their school life.

Campus traditions have many positive

effects that enhance the overall student experience (Bronner, 2012). Traditions can teach students about the history of their institution, provide a means of building community, instill common values, generate pride and enthusiasm (Van Jura, 2010) and can be used as tools of socialization (Collins & Lewis, 2008). The actions and behaviors often associated with traditions allow people to express their beliefs, values, and associations with one another in a manner that language often cannot convey (Manning, 1994). Furthermore, as student bodies become increasingly diverse, traditions can play a pivotal role in welcoming marginalized groups into the greater community (Van Jura). Given all of these ways campus traditions enhance the overall student experience, it is easy to see why this factor from the Sense of Community Scale positively predicted students' satisfaction with their school life.

Socialization across backgrounds

Students, on average, disagreed that their social interactions were largely confined to other students of the same race/ethnicity. Overall, students also agreed there were opportunities to interact with people from different backgrounds. Socialization across backgrounds was the weakest of the significant predictors of students' satisfaction with their school life and was also weakly related to the other factors from the Sense of Community Scale. The significant relationship between socialization across backgrounds and satisfaction with school life found in this study is supported by Astin's (1993) landmark study in which he found that after controlling for the effects of input and environmental variables, involvement variables demonstrating positive associations with satisfaction with campus life leaned heavily toward student interaction and social life including socializing with persons from different racial or ethnic groups.

The opportunity for diversity and global learning is another high-impact practice (Kuh, 2008), establishing that interacting

with students from different backgrounds is a valuable part of the experience of higher education. In their synthesis of the literature on how college affects students, Pascarella and Terenzini (2005) identified the greater the structural diversity on campus, the more likely students were to socialize with someone of another race-ethnicity; students' interactions with members of a racial-ethnic group different from their own have statistically significant and positive net effects on racial-ethnic attitudes and values. Opportunities for socialization with persons from different racial or ethnic groups can happen in a variety of contexts, from recreational sport (Buzzelli, 2016) to academic interactions (Torino, 2015), and requires student affairs professionals to design effective programs to nourish campus climates of multiculturalism (Cheng, 2004). As student bodies become more diverse, in addition to celebrating their history and heritage, colleges and universities should also find ways to create new rituals and expand traditions to increase opportunities for socialization with persons from different racial or ethnic groups (Cheng) since this is positively related to students' satisfaction with their school life. While this appears particularly important for predominantly white institutions, it stands to reason it is just as important for minority-serving institutions such as historically black and/or tribal colleges and universities.

Conclusion

When interpreting these findings, it is important to note the limitations associated with the study. While the sample size was relatively robust in this study, caution is advised in generalizing the results beyond the sample used in this study as subjects were recruited from only one institution, consisted of a lower proportion of freshman and, a higher proportion of females when compared to the entire student population, and given over 80% of the respondents identified as Caucasian. Future research sampling students from multiple institutions would

help to increase the generalizability of the results.

The review of literature from this study indicated a lack of research about a clear connection or correlation between a sense of community and persistence or retention of college students. The results from this study indicate a strong possibility that institutional efforts to instill in its students – through both academic and extracurricular activities – a strong sense of campus community has the potential to result in positive results for student satisfaction and student persistence. However, additional research specifically addressing the building of campus community in a variety of areas is necessary to fully establish this connection.

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