

Student Feelings of Connection to the Campus and Openness to Diversity and Challenge at a Large Research University: Evidence of Progress?

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ABSTRACT: Previous research conducted by Pascarella and his colleagues (1996) has shown that undergraduate students tend to change toward greater openness and tolerance to diversity from their freshman to their sophomore year. Although the study by Pascarella includes many different types of universities in the United States, the average size of the entering freshman class in their research was reported to be approximately 4,000 students. While these findings are extremely valued in a general sense, we believed that they might not be found at very large universities. To our surprise, our findings indicated that large universities might not be exceptions to Pascarella's previous findings.

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Historically, the students that enroll in large, research-focused institutions have been predominately white, but trends indicate that more students of ethnic and cultural diversity are applying and are accepted at these larger institutions. Indeed, higher education is facing a future in which the student body will reflect the increasing size and diversity of the population in general (Cortes, 1991). In light of this change in enrollment demographics, large universities may not be prepared to deal with integration issues associated with increased minority enrollment. Large and predominately white institutions, may find the task of creating a welcoming community atmosphere increasingly difficult, primarily because of the increasing number of students and the increasing diversity of the student body. Research shows that increasing the national ethnic diversity on a campus while neglecting to attend to the racial climate can result in difficulties for all students (Hurtado, Milem, Clayton-Pendersen, and Allen, 1999).

The recent focus on “campus climate” by educational researchers has provided a profile on the status of racial and ethnic diversity within the university culture. Hurtado et al. (1999) have argued that campus climate can best be examined by looking at the impact of structural diversity, psychological climate, and behavioral dimensions on the culture of the university. According to Henriksen (1995), there are several potential institutional barriers confronting minority students who are planning to or do attend universities with a majority of white students and faculty. For instance, professors may have some difficulty understanding the academic encouragement that minority students seek, and as a consequence instructors may feel as though they need to lower standards in order to accommodate a growing multicultural campus. In a recent report compiled by the Oregon State System of Higher Education (1997), most students valued ethnic diversity

at their university as a positive experience, although students reported generally low levels of participation in extracurricular events or ethnic/cultural events. This is interesting in light of the report by Abraham and Jacobs (1990), indicating that the groups students join on campus are the most influential factor in adapting to campus life.

Perhaps it is the responsibility of the institution to promote involvement in campus activities for students experiencing an increase in student diversity. Institutions that promote student involvement tend to foster high academic expectations for student performance and have a strong commitment to diversity (Kuh et al., 1991). Research supports the notion that structured forms of inter-group contact are important for improving racial attitudes (Pascarella et al., 1996). When faculty members at institutions that are characterized as “involving colleges” have been encouraged to promote student interactions that cross racial and ethnic boundaries, African American students have reported higher grade point averages; and faculty have reported higher levels of satisfaction with their teaching (Nettles, 1991). It appears that institutions can respond in many different ways in order to increase positive feelings of openness and connectedness on campus for students, faculty, and for the institution itself by incorporating programs directed towards involvement.

Advocates faculty development in higher education look toward this possibility with the expectation that there must be ways of creating community at many different levels, even in the face of the large and diverse populations seen at major research universities. As a result, many instructional programs have been and are being piloted as possible strategies for heading off problems of student alienation and disaffection before the problems become serious.

There have been several attempts over the years to take the pulse of student attitudes in terms of racial tolerance and openness. Pascarella et al. (1996) found that several variables accounted for a significant, positive attitude change in openness to diversity for first year students. For example, students who lived on campus, who studied the most, and who were most engaged with their student peers tended to have the highest levels of end-of-first year openness to diversity. The only *institutional* characteristic Pascarella found to have positive effects for student feelings of openness to diversity was the degree to which students perceived the institution as being open to members of all races and ethnicities. The results were tempered by student gender and ethnicity, however, with some types of interactions more significant for students from different ethnic groups. For example, Pascarella et al. (1996) found that students who lived on campus and participated in a cultural awareness workshop had significantly stronger net positive effects for feelings of openness to diversity/challenge for white than for nonwhite students. In general, however, Pascarella and Terenzini (1991) reported that most researchers have found trends toward increasingly liberal views as a function of the college experience.

On the other hand, Henderson-King and Kaleta (2000) reported that, for their sample of undergraduates, measures of tolerance actually showed a decline in positive feelings toward other social groups for students not enrolled in courses that had specific diversity or tolerance focus. Those who had been enrolled in such courses maintained their positive feelings toward other social groups over the course of the semester, while students who did not take courses with specific diversity or tolerance focus generally reported a significant decline in feelings towards other social groups. These results

seemed congruent with other research, which suggests that the tenor of current times discourages increased liberalism and encourages conservatism (Wilder, Hoyt, Surbeck, Wilder, & Carney 1986). Is it possible that a student's only chance at moving toward openness and tolerance for diversity is by taking a course designed to encourage tolerance? This was the question that arose during the planning of a large, campus-wide project designed to encourage faculty to involve students in more community-building strategies within their classes to encourage openness to diversity at a large research-focused institution.

The Study

The Environment

This study was conducted at the University of Texas at Austin, known as a large research university (more than 50,000 students are currently enrolled). We are required to adhere to restrictive rules regarding the recruitment and support of minority students due to legislative changes in affirmative action-driven admission policies*. These conditions have led us at the campus Center for Teaching Effectiveness to speculate that students at such an institution may not feel they are connected to the campus, in any but the most superficial ways, because of the size of the student body and the size of the classes in which they enroll. When summarizing the large body of research that investigated the impact of institutional size on student variables, Pascarella and Terenzini (1991)

* The Hopwood case was brought to the United States District Court in 1994 by 4 white individuals who claimed they were being discriminated against under the affirmative action guidelines of the Law School admissions process at the University of Texas at Austin. For more information, please refer to the following web address: <http://www.law.utexas.edu/hopwood/hopwood.htm>

concluded that being at a large institution tends to limit the interactions, both social and academic, that are needed to support educational achievement and self-development. Tinto (1987) also reported that student retention was lower at very large institutions compared to small institutions, suggesting that this could be due to the intervening variables of degree of student involvement and level of faculty/student interaction possible. Astin (1993) discussed the implications of institutional climate on student development and indicated that large public institutions with a strong research orientation and a weak student orientation are most likely to exhibit a climate that negatively affects student development.

In addition, being in the South and with the development of a ban on affirmative-action admission programs, we hypothesized that the target institution in this study might see large differences among different ethnic groups about feelings of tolerance for others and openness to being in a diverse environment. Again summarizing a large body of research, Pascarella and Terenzini (1991) indicated that, with regard to the development of racial tolerance, one critical variable is the perceived institutional stance toward diversity. Students attending an institution with perceived values of openness to racial, ethnic, and values diversity are more likely to move in the direction of those values themselves in the course of their college years. At the University of Texas the student body may not yet be as diverse as other institutions, but the school has made some progress in creating programs that recruit minority students in an effort to develop an institutional culture that welcomes diversity. In the light of these conditions one might predict that students would show 1) lower feelings of connectedness to the campus and 2) less openness to diversity than what others have reported.

Method

Participants

During each fall and spring semester of the academic years, 1998-99 and 1999-2000, over 40 faculty from across the campus allowed the research team to gather data from their classes at the beginning of the semester. Approximately 10 faculty members were participants in a grant initiative of which this study was a part, while others were asked to participate voluntarily. Approximately 30 additional faculty members were asked to participate as volunteers. The selection criteria for faculty participants were based on the type of course taught; we wanted to achieve course domain ratios that were representative of the university enrollment patterns (i.e., students typically enroll in more liberal arts classes than any other type of class). The following domains were represented with sample sizes that approximated the number of students that typically take these classes: liberal arts, nursing, engineering, natural science, education, fine arts, and business. These data provided a snapshot of student feelings about campus community and tolerance for diversity. Over 3,900 students participated in the data collection during the four target semesters.

Instruments

Both instruments used for this study, the modified Social Connectedness scale, or Campus Connectedness scale (Lee & Robbins, 1995; Lee & Davis, 2000) and the Openness to Diversity and Challenge scale (Pascarella et al., 1996), were administered to students within the first month of the semester.

We modified the Social Connectedness scale, which originally focused on general feelings of personal connectedness, by wording the items in a way to specifically assess

feelings of connectedness to the campus (e.g., we changed items such as “I don’t feel related to anyone” to, “I don’t feel related to anyone on campus”) Therefore, we renamed this modified instrument to the Campus Connectedness scale. Lee and Davis (2000) defined connectedness as “a student’s psychological sense of belonging on a campus.” Sample items include: “I know a lot of people on this campus,” “I have friends on this campus that I feel I can tell anything,” and “I feel connected to campus life.” Students indicated on 6-point Likert type scales the degree to which they agreed or disagreed with each statement (1= strongly disagree; 6=strongly agree). Lee and Davis (2000) reported a Cronbach’s alpha of .92, demonstrating high internal consistency for the Social Connectedness scale. We analyzed the modified scale of Campus Connectedness and found it to have a Cronbach’s alpha of .92, which is identical to the original scale by Lee and Davis (2000).

The Openness to Diversity and Challenge scale was used to assess feelings of openness to diversity among students and openness to academic challenges. Pascarella et al. (1996) defined openness as “an orientation toward enjoyment from being intellectually challenged by different ideas, values, and perspectives as well as an appreciation of racial, cultural and value diversity.” Sample items include, “I enjoy having discussions with people whose ideas and values are different from my own,” and “Contact with individuals whose background (e.g. race, national origin, sexual orientation) is different from my own is an essential part of my education.” Students indicated on 5-point Likert type scales the degree to which they agreed or disagreed with each statement (1= strongly disagree; 5=strongly agree). Pascarella et al. (1996) reported a Cronbach’s alpha rating of

.84, demonstrating internal consistency for the Openness to Diversity and Challenge scale.

Analyses

One-way Analyses of Variance (ANOVAs) were conducted, followed by Sheffé *post hoc* tests for more than independent variables, to detect any significant difference between gender, ethnicity, class rank, and course discipline for measures of Campus Connectedness and Openness to Diversity. The number of participants varies for each set of means due to participant variance in accurately reporting demographic variables and in responding to all the items on the survey.

[Insert Table 1 here]

Results

Campus Connectedness

Contrary to our assumptions, students responded with a high overall mean on campus connectedness: the vast majority of the responses fell above the scale median ($Mdn = 3$, $M = 4.49$, $SD = 0.94$). Overall, students in the sample appeared to find a connection to the campus despite its size and complexity and to other students.

The data were also analyzed according to three student demographic categories: gender, ethnicity, and class rank. Female students showed more connected feelings than males (female $M = 4.60$, $SD = 0.94$; male $M = 4.45$, $SD = 0.89$; $t(3073) = -4.95$, $p < .001$), a finding consistent with reports by Pascarella et al. (1996). There were no significant differences among ethnic groups. Finally, there was a significant difference between sophomores and seniors found *post hoc* on feelings of campus connectedness, but none of the other class ranks were significantly different from one another.

The final sorting variable that was investigated was type of course (e.g., liberal arts, natural science) that students were taking when they completed the survey. Although there were no significant differences between types of course overall, we found that natural science classes were significantly different from all other course types in the fall 1999 semester. During that semester, data from approximately 1,300 students enrolled in four types of courses (liberal arts, natural sciences, engineering, and education) were collected. Within that semester, the only natural sciences course surveyed was a computer programming class with 84 students. The students in this class had the lowest overall mean for campus connectedness ($M = 4.11$, $SD = 0.90$) of all courses surveyed that semester, and their mean was significantly lower than the highest course mean taken from an engineering class ($M = 4.48$, $SD = 0.85$). When compared to the two other semesters that surveyed classes in the natural sciences (zoology, chemistry, and ecology), the computer science class of fall 1999 was significantly lower than the means of those other natural science classes ($M = 4.50$, $SD = 0.93$).

The students in the computer-programming course were demographically very homogeneous. Of the 82 students that completed the survey, 64 were natural science majors, 44 were white, and 62 were male. White males in general seem to have a mean for campus connectedness close to the overall average, yet this particular class had an unusually low campus connectedness mean. One explanation could be that people who enroll in computer science classes belong to a population that does not have the opportunity to feel connected, or that they choose not to explore any opportunities that make them feel more connected. In any case this computer science course appeared to be the only source of difference between semesters.

Openness to Diversity and Challenge

Our second instrument targeted students' feelings about working with others who had different backgrounds and different views and about being challenged by what they were experiencing. Just as with the campus connectedness data, we analyzed the results for possible differences according to student demographics and course differences.

Beginning with gender, females reported a significantly higher mean than males (female $M = 3.99$, $SD = 0.68$; male $M = 3.84$, $SD = 0.73$; $t(2866) = -6.04$, $p < .001$). The second demographic variable that we analyzed was ethnicity. Here one would expect much greater differences across the groups since this is a variable that so directly affects groups differentially. And indeed, of all the comparisons made of these data, this particular one shows much greater levels of significance than the others. The overall comparison, using analysis of variance, indicated a statistically significant difference across the groups, ($F(5, 3336) = 8.34$; $p < .001$). *Post hoc* comparisons revealed that the White, non-Hispanic group was significantly lower than the African-American and Native-American students, plus a sixth group of "others." Finally, there was no significant difference in the means according to class rank.

The final analysis compared scores between the discipline of the course being surveyed. The two nursing classes surveyed were the only type of course that showed a significant difference from other course domains in attitudes of openness. The mean score of the two nursing classes was the second highest mean ($M = 4.16$, $SD = 0.68$), surpassed only by the mean of fine arts classes ($M = 4.17$, $SD = 0.67$). *Post hoc* tests revealed that nursing was significantly higher than engineering, education, and business classes. Reasons for these differences could be attributed to the overwhelming number of

women enrolled in the nursing program (90 out of 108 participants in the sample of nursing students were female). The overall semester data reveal that women typically have more positive attitudes of openness to diversity than men do, regardless of ethnicity. Also, white women had the overall highest mean for openness to diversity, and there are more whites enrolled in the nursing program than any other ethnic group (78 out of 108 participants in the sample of nursing students). Besides statistical evidence, it seems as though professional training for nurses may naturally include exposure to diverse groups of people, which could potentially make them more tolerant of others. This would be consistent with a finding of Pascarella et. al. (1996), for which there was a significant effect of participation in a cultural awareness workshop for all groups surveyed. The nurses' training might come from a similar intervention.

Discussion

The overall results of our study are surprising but encouraging. The most surprising result of the data analysis was the relatively high overall scores that the students gave on these two instruments. We had not expected these results based on the conclusions of Wilder et al., (1986) or on the discussion of campus effects by Pascarella and Terenzini (1991). As noted earlier, their results found students feeling disconnected at large institutions. Since ours is a very large institution, we expected to see lower levels of campus connectedness. Additionally, since the target institution is being affected strongly by diversity admittance rulings, we would expect less tolerance and openness to diversity. On a Likert scale of 1(low) to 6(high), students felt more connected to the campus than disconnected ($M = 4.48$, $SD = .94$). On a Likert scale of 1 (low) to 5 (high),

students responded with an overall positive attitude toward diversity and challenge ($M = 3.93$, $SD = 0.71$).

The results concerning gender should not be surprising when we consider that in the literature, females are believed to be more concerned with making connections with others than are males in our culture (Belenky, Clinchy, Goldberger and Taroule, 1986; Gilligan, 1979; Tannen, 1990). Thus their tendency to feel more connected might be a natural reflection of their social connectedness development in general.

We can conclude from our initial data gathering that even across gender, ethnicity, class rank, and discipline, these students were fairly consistent in their views with regard to feelings of connection to the campus and openness to diversity and challenge. The differences we found for gender on both instruments were small but statistically significant, and they were in the direction predicted by other literature mentioned earlier: That females are more focused on connecting with others. The differences for ethnicity reflect the greater awareness of diversity and challenge in ethnic minorities, and yet overall, there was a strong sentiment in favor of diversity and challenge among all students.

The differences that do exist among these groups are not in substance but in degree. The students in our study seemed to be in agreement on general trends, but to different levels of commitment. That is, overall the students felt connected to the campus, but some were less connected than others. And overall, students welcomed diversity and challenge as part of their educational experience, although some subgroups were more open than others. These findings are encouraging in the light of the research by Wilder,

et.al. (as cited in Henderson-King and Kaleta, 2000) which spoke of a tendency toward greater conservatism in today's students.

There are claims that community building is a current problem throughout modern society (Putnam, 2000). Specifically, these trends could bring with them the problems of exclusion and ingroup/ outgroup mentality that seems to be characteristic of the larger society. However, our findings of consistently high attitudes (higher than the scale median) for both openness to diversity and campus connectedness are positive indications for those who wish to bring students together as part of an academic community. The students already appear to be primed for such a community, despite the fact that they are enrolled in a very large institution (where feeling like a number could be the norm) and one located in the South (where diversity and challenge issues are still very sensitive). It may take less than we thought to help students who attend large universities to find community and to appreciate the difference and challenge that the literature claims will keep them coming back for more. It is certainly worth continuing to measure the temper of students and possibly to investigate the impact of the last two decades of diversity programs on student attitudes toward others.

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