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ABSTRACT

This study examines the undergraduate characteristics and factors in the undergraduate experience that appear to correlate with beneficial classroom experiences. The study was conducted at a large research university with an undergraduate population of about 10,000 students. Data were derived from a survey instrument that is part of the university's on-going assessment program, with 150 items of information collected in four categories: (1) background information (age, class year, sex, ethnicity, employment, admissions status, academic major, financial aid, residence), Scholastic Assessment Test scores, and high school grade point averages; (2) student plans, goals, and reasons for attendance; (3) level of student satisfaction with a variety of campus services and facilities, as well as with the institution's academic, administrative, and social environments; and (4) cognitive and noncognitive experiences, such as classroom experiences, faculty contact, course-taking patterns, and self-reported growth. Multivariate data analysis examined surveys of 740 undergraduates who entered the university as freshmen. The study found that the most beneficial classroom experiences were reported by students who perceived high levels of faculty concern and interaction with students, who reported active engagement in the academic and social structure of the institution, and who observed a campus climate of racial harmony and political tolerance. (Contains 52 references.) (CH)

Student Measures Associated with Favorable Classroom Experiences

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Dolores Vura
Editor
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Student Measures Associated with Favorable Classroom Experiences

ABSTRACT

Since the classroom experience is central to the purpose of educational institutions, we need to examine those factors that exert positive and negative influences upon it. The data in our study contain measures that reflect an array of concepts from the literature, including pre-college traits and achievement, academic and social integration, student effort, encouragement of family and friends, financial need and ability to pay, and racial and political campus climate. The most beneficial classroom experiences are reported by students who perceive high levels of faculty concern and interaction with students, who report their own active engagement in the academic and social structures of the institution, and who observe a campus climate of racial harmony and political tolerance.

Student Measures Associated with Favorable Classroom Experiences

The Research and Policy Problem

The undergraduate classroom represents the formal structure in collegiate organizations where learning officially takes place. Nevertheless, the literature on outcomes assessment rarely focuses on the vitality of this experience explicitly. The Pascarella and Terenzini classic volume on how college affects students (1991) presents and discusses the existing array of theories and models of student change, and while several models note the importance of faculty and student interaction, explicit attention to the classroom is either absent or not at all prominent in the discussion. Indeed, most of the empirical studies that provide support for the models by Pace, by Tinto, by Bean, and by Cabrera and their associates, focus as much on advising and study habits and faculty-student interaction *outside* the classroom, as they do on the dynamics *within* the classroom.

In using these models to examine a variety of desirable student outcomes, Volkwein and his research colleagues in several studies have found that the classroom experience is the single most important influence explaining many aspects of student growth and satisfaction (Volkwein et al., 1986; Volkwein, 1991; Volkwein & Carbone 1994; Volkwein & Lorang, 1996). Terenzini's NCTLA model (1995) is the first to explicitly identify classroom experiences as having a prominent role in producing learning outcomes. In their recent studies at the NCTLA, Pascarella and Terenzini and their research colleagues have now begun to incorporate measures of course learning, instructor effectiveness, and other academic experiences into their examination of learning outcomes (Terenzini et al., 1995, 1996; Pascarella et al. 1996). At least two of these studies (Terenzini et al., 1995; Pascarella et al. 1996) have found that measures of instructor organization, skill, clarity, and support have exerted significant influences on student outcomes. Pace and Kuh and their research colleagues in each new edition of the CSEQ have been increasing the number of items that solicit information about student study habits and classroom learning behaviors (Kuh, Pace & Vesper, 1997).

Given the importance of the classroom experience, both conceptually and empirically, this study examines the undergraduate characteristics and factors in the undergraduate experience that appear to be the most strongly associated with vitality in the classroom, as reported by students.

Conceptual Framework

There are at least three major assertions regarding the nature of adjustment to college. The most traditional view is that academic preparedness for college and clear goals are the main factors accounting for differences in persistence behavior, academic performance, and other educational outcomes (Feldman & Newcomb, 1969).

A second group of alternative yet complementary perspectives fall under the general description of student-institution fit models (Pascarella & Terenzini, 1991). Perhaps the most widely researched of these models claims that student persistence and growth depends on the degree of successful integration into the academic and social structures of the institution (Spady 1970, 1971). Tinto has advanced this model and elaborated on it with the additional claim that successful adjustment to college involves severing ties with family and past communities in order to successfully integrate the student into the new academic community (1987, 1994) . Another complementary perspective focuses on the importance of student involvement and effort (Astin 1984, Pace 1984). Others argue that support from friends and family are important enhancements to college adjustment (Bean 1980; Bean and Metzner 1985; Nora 1987; Nora et al. 1990). Yet another branch of this literature emphasizes the importance of financial variables and the student's ability to pay (Cabrera et al. 1990; St. John, 1994). Most of these models have been constructed to explain one outcome -- student persistence; but some researchers have used these and similar models to explain other outcomes like student growth and satisfaction (Pascarella, 1985; Volkwein et al., 1986; Volkwein, 1991; Kuh, et al., 1997).

A third set of assertions rest on the role that perceptions of prejudice and discrimination play in student adjustment. Exposure to a campus climate of prejudice and discrimination has gained increased attention as a factor accounting for the differences in persistence rates between minorities and non-minorities (e.g. Fleming, 1984; Hurtado, 1992, 1994; Hurtado, Carter & Spuler, 1996; Smedley, Myers & Harrel, 1993). Many authors argue that intolerance towards minority students establishes a climate of racial prejudice and discrimination that permeates both academic and social interactions, and thus figures prominently in explaining their maladjustment with the institution (Hurtado, 1992, 1994; Hurtado, Carter & Spuler, 1996; Loo & Rolison, 1986; Murguía, Padilla, & Pavel, 1991). The resulting low involvement with the different campus communities impinges on the minority student's cognitive and affective development as well as persistence (Fleming, 1984; Loo & Rolison, 1986; Smith, 1989, 1992; Tracey and Sedlacek 1984,1985,1987; Suen, 1983; Loo and Rolison 1986). Not all studies have supported these claims (Arbona and Novy 1991; Nettles, Thoeny and Gosman 1986; Cabrera and Nora 1994), and there is at least preliminary evidence that perceptions of prejudice and racial disharmony affect White and minority students alike (Nora & Cabrera, 1996).

Since the classroom experience is central to the purpose of educational institutions, we need to examine those factors that exert positive and negative influences upon it.

Methodology

The data in our study contain measures that reflect an array of concepts from the above literature, including pre-college traits and achievement, academic and social integration, student effort, encouragement of family and friends, financial need and ability to pay, and racial and political campus climate. The study is conducted at a research university with a matriculated undergraduate population of about 10,000 students. The data are collected on a survey instrument that is part of the University's on-going assessment program and contains over 150 items of information in four categories:

1. Background information about age, class year, sex, ethnicity, employment, admissions status, type of enrollment, major, financial aid, and residence. In addition, we obtained information from the admissions system on SAT scores, high school GPA and rank in class.

2. Student plans, goals, and reasons for attendance.

3. Levels of Student satisfaction with an array of campus services and facilities, as well as with various aspects of the institution's academic, administrative, and social environments or climates.

4. A variety of cognitive and non-cognitive experiences and outcomes, including classroom experiences, faculty contact, course taking patterns, graduation plans, anticipated loan indebtedness, Grade Point Average (GPA), and self-reported growth.

The multivariate analysis for this study is conducted on 740 representative undergraduates who entered the university as freshmen (non transfers), and who responded to recent undergraduate outcomes surveys. The 740 are representative with respect to age, ethnicity, and admissions profile. Females are slightly over-represented among the respondents. While not every undergraduate field of study is present in the sample, the 15 largest majors are represented in approximate proportion to their numbers in the undergraduate student body. Table 1 lists the variables that are assembled for the OLS regression model. Our regression analysis uses a conservative approach by employing listwise deletion of cases and omitting students over the age of 25.

Dependent Variable

This research focuses on the classroom experiences reported by respondents to the university's outcomes survey. The dependent variable is a scale of classroom experiences developed by Terenzini and his colleagues (1980, 1982, 1984, 1987), and enhanced by Volkwein and his colleagues (1991, 1994, 1996) [alpha=.88]. This is a seven-item scale on which students report the extent to which they have classes in which they are intellectually challenged, learn something new, are given stimulating assignments, etc. [Students respond on a five-point scale: 1=rarely/never, 2=less than half the time, 3=about half the time, 4=more than half the time, 5=almost always.]

Independent Variables

The variables and scales used in the analysis are shown in Table 1. They draw directly upon the constructs from the literature in general, and from the Cabrera and Tinto Models in particular. The pre-college demographic and academic ability measures include ethnicity, gender, high school grades and SAT. The measures listed in the table for academic integration(faculty and effort), social integration(peer), campus climate(tolerance and prejudice), encouragement(family and friends), and economic factors(financial difficulty and work-study) are borrowed not only from Cabrera's work (1992, 1993), but also from studies by Pascarella and Terenzini, 1982; Terenzini, et al., 1982, 1984; Nora 1987; Nora, et al. 1990; Volkwein, et al., 1986; Volkwein 1991; Volkwein & Carbone, 1994; and Volkwein & Lorang, 1996. The alpha reliabilities for the six multi-item scales used in these other studies are recalculated for this population; and as shown in Table 1, all exceed .80.

Results and Conclusion

The results of our analysis are shown in Table 2. None of the pre-college measures reflecting student characteristics and prior achievement are significant. Ethnicity, sex, high school performance, and SAT scores apparently are unrelated to the vitality of the classroom experiences reported by students at this university. Even class year, friends, family, and finances are not influential. The significant beta weights are attached to the variables reflecting faculty concern (.474) and faculty contact (.093), racial and political tolerance (.107), student effort (.233), and peer interactions and friendships (.094). The adjusted R-square exceeds .43, which is quite strong.

Thus, the most beneficial classroom experiences are reported by students who report the highest levels of academic integration in the form of faculty concern and contact with students and the student's own academic effort and engagement. Of significant, but secondary importance as influences on the classroom experience are the students social integration as reflected in the scale of peer relations and the scale of racial harmony and political tolerance.

The prominent roles of faculty concern and student effort are consistent with several branches of the literature and with an array of other studies (see for example, Pascarella & Terenzini, 1991; Kuh, Pace & Vesper, 1997; Volkwein 1991). Indeed, a favorable classroom experience and faculty respect for students and student effort may all mutually reinforce each other. We remain surprised that such mutual reinforcement does not seem to occur more frequently in classes attended by juniors and seniors than by freshmen and sophomores.

Given the discussions in the literature, we expected to observe significant influences by the variables reflecting gender, financial need and ability to pay, and prior achievement and ability. However, these variables are not influential with this population. We are *not* surprised by the non-significance of gender because other studies at this particular university have found few male-female differences. We are surprised, however, that the economic variables do not

intrude into the classroom and influence the quality of that experience. Apparently, these students do not take their financial problems into the classroom. In addition, it seems logical that the better students (measured by SAT scores and high school grades) should report more favorable classroom experiences than other students, but we did not find this to be the case. Classroom experiences thus appear to be independent of student talent, but not of student effort.

The non-significance of ethnicity challenges some of the statements in the literature about the permeability of discrimination throughout all aspects of the undergraduate experience. We did not find it even when we used each of the separate racial groups as dummy variables in the analysis. Additionally, the scale of racial harmony and political tolerance in our study exerts a significant *positive* influence on the classroom environment, whereas perceptions of prejudice are non-significant and *negative*. This invites closer examination in a population that contains a greater number of minorities.

Thus, in this study we have explored a number of student variables that the literature suggests might influence the classroom experience. The most beneficial classroom experiences are reported by students who perceive high levels of faculty concern and interaction with students, who report their own active engagement in the academic and social structures of the institution, and who observe a campus climate of racial harmony and political tolerance. Such findings are congruent with the mainstream of the research literature, as well as with the literature emphasizing principles of good practice (Chickering & Gamson, 1987; NCES, 1991; Pace, 1987). In fact, these findings are entirely consistent with the research efforts by Pace and Kuh to identify measures of student-faculty contact, active learning, and cooperation among students (Kuh, et al., 1997).

This line of research is important because of the current national interest in the undergraduate experience and the instructional contributions that faculty make. Our dependent variable -- which we believe reflects classroom vitality -- is a scale of items that reflect the presence in the classroom of well-prepared, caring, and interesting instructors who give meaningful assignments, according to the students. Thus, our classroom scale emphasizes faculty *behaviors*, rather than faculty *characteristics*. Apparently these faculty behaviors not only stimulate student learning, but also overcome student differences in race, sex, financial need, and family background -- differences that under conditions of good teaching are left at the classroom door.

Future research on this topic should incorporate measures that reflect additional aspects of the students and their undergraduate experiences. Moreover, student interactions in the classroom need to be measured more precisely and elaborately, perhaps differentiated by academic discipline. Even more importantly, the connections among various undergraduate experiences and subsequent educational outcomes need additional scrutiny. What happens in the classroom is central, but which learning activities produce the most favorable outcomes, and do these influences vary by institution type? We hope to undertake some structural equation modeling using a multi-campus dataset.

This study at a research university suggests, however, that student holistic assessments of the undergraduate classroom experience are significantly linked to student perceptions about campus climate, especially those aspects of campus climate reflecting faculty concern for students, positive peer interactions, harmony and tolerance, and student engagement. This strongly suggests a campus agenda that encourages faculty attentiveness, student academic and social engagement, and tolerance among all members of the campus community.

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