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Measuring College Student Satisfaction:
A Multi-Year Study of the Factors Leading to Persistence

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Introduction

How satisfied are students with their college experience? Do they receive the academic and social benefits they expect when they enroll? At what point do they decide that their institutional choice is a "fit" or not? Numerous researchers have investigated these questions for decades (Astin, 1977; Noel, 1978; Pascarella & Terenzini, 2005; Peters, 1988; Tinto, 1987). In the end, most researchers agree that highly satisfied students are more likely to remain in, and ultimately, graduate from college.

One of the ways that colleges measure student satisfaction is through the administration of student satisfaction surveys. Satisfaction survey programs emerged in the 1960s (ACT, CIRP), and expanded significantly in the 1980s and 1990s (SSI, NSSE, Noel-Levitz). Today, survey programs remain a mainstay on most college campuses. Their endurance and popularity persists for several reasons.

First, college administrators use satisfaction surveys to measure student perceptions of the campus experience in order to identify those areas where the institution is performing well. Conversely, colleges also use survey findings to target areas for improvement or to identify a need for new programs. Strengthening academic and co-curricular programs forms the basis for high-achieving institutions, contributing to institutional effectiveness and ensuring student success (Bryant, 2006).

Second, research indicates that dissatisfied students often become drop-outs (Bryant, 2006). Attrition lowers enrollment, hindering institutional reputation and reducing institutional vitality (Miller, 2003). While some student discontent is unavoidable, the best way to retain students is to effectively market the institution, ensuring an optimal student/college "fit" (Schertzer & Schertzer, 2004). When a mismatch occurs, it may lead to dissatisfaction, which, in turn, results

in a lack of institutional commitment and increased attrition. Colleges with higher satisfaction levels enjoy higher retention and graduation rates, lower loan default rates and increased alumni giving (Miller, 2003). Successful institutions realize that it is better to invest at the onset to retain their students by identifying what enhances student satisfaction (Elliott & Shin, 2002).

Third, satisfaction surveys provide insights as to how institutional quality and reputation is perceived by various audiences. Institutional reputation is based on many factors, and drop-out rates are one of these factors. Developing a more cogent understanding of what keeps a student satisfied limits student attrition and creates a more sustainable campus environment (Elliott & Shin, 2002).

Fourth, and lastly, student survey results aid in strategic planning and institutional goal-setting, providing important direction for operational objectives and program planning. The relationship between retention, student satisfaction, and institutional goals is a strong one(Schertzer & Schertzer, 2004). Institutions that use survey data to guide decision making develop an in-depth understanding of students as critical consumers and meet their needs more effectively.

Purpose of the Study

The purpose of this study was to identify the factors that contribute to college student satisfaction and to measure satisfaction across six dimensions of growth and integration. As one of the objectives resulting from a strategic planning process, a comprehensive student survey program was implemented at a small, private, specialized institution for the following three reasons:

- to explain and substantiate consistently high retention rates, in order to develop an intentional, proactive program to sustain student persistence;

- to create a composite of institutional strengths and weaknesses, in order to support recruitment, branding, and marketing programs;
- To develop a longitudinal profile of the student population for internal comparisons, benchmark comparisons, and trends analysis.

Background

Research focusing on college student satisfaction highlights those factors contributing to overall student satisfaction, student departure, and the connection between retention and a student's social/academic integration. While numerous studies identify the reasons for student departure (Astin, 1977; Danaher & Somassundaram, 2008; Noel, 1978; Tinto, 1987), an equal number of studies reveal that a student's positive perceptions of academic programs and personal affiliations with faculty, staff, and students contribute to a feeling of "student-centeredness" (Elliott, 2003). This phenomenon makes students feel connected to and welcomed by their institution, making them more likely to stay in school and feel satisfied with their overall experience.

A variety of factors contribute to student satisfaction. Elliott and Healy (2001) identified eleven dimensions of a student's educational experience. They ultimately determined that the quality of classroom interactions, the rigor of the curriculum, positive feelings about their classroom and social interactions, connections to faculty, and a sense of fitting in with the campus culture contributed to a feeling of belonging. Supporting this emphasis on a holistic experience, Peters (1988) found that campus life outside the classroom was just as essential to student satisfaction as the educational experience.

Borden (1995), who studied the relationship between student satisfaction and persistence, found that high levels of satisfaction in the first year indicated that students would likely persist

to degree completion. Part of the satisfaction with the first-year experience was related to a student's connection to their advisor or to a key faculty member. Pascarella (1980) investigated the extent of the student-faculty relationship and asserted that the more a student interacts with faculty, the stronger the personal commitment to the institution, making the student less likely to depart. Peterson, Wagner, and Lamb (2001) also found that effective academic advising played a role in a student's positive perception of the institution. Students who were able to make the connection between their program of study and their eventual career goals, and who received effective, meaningful academic advising, felt more positive about the institution, on the whole (Noel, 1978).

Peterson, Wagner, and Lamb (2001) additionally found that a positive, substantive relationship with faculty or staff caused a sense of "well being" for a student, deepening institutional connections and commitment. Elliott (2003) highlighted the role of faculty accessibility in increasing student satisfaction and positive feelings about the college. Furthermore, faculty were found to serve as important socializing agents for students, helping students adjust to college life, achieve intellectually and personally, and work towards career and educational aspirations (Lamport, 1993).

Conceptual Framework

Using Tinto's (1987) interaction theory as a conceptual framework, this study was designed to assess student satisfaction across six transformative dimensions of growth and development. These six dimensions, customized for the institutional goals and for the purpose of this research, are based on Chickering's (1969) theory which identified the "vectors" leading to student maturation and self-actualization while in college:

- Educational experience: The extent to which student expectations are met relative to course content, rigor, quality, and challenge;
- Development of skills & knowledge: The extent to which students are able to learn, to think critically, develop problem-solving skills, synthesize material and analyze information;
- Faculty contact: The extent to which students are satisfied with academic advising, accessibility of faculty, and the extent of the interaction with faculty acting as an advisors/mentors;
- Personal and social growth: The extent to which personal and/or social growth is experienced and developed by the student (personal growth defined as private, individually-directed development, while social growth is defined as involvement in planned group activities and interactions, usually sponsored by the institution);
- Sense of community: The extent to which students feel a sense of belonging and being welcomed by the institution, both broadly and within their individual departments. In addition to personal relationships, students may form a relationship with the institution's organizational identity and culture (Bhattacharya, Rao, & Glynn, 1995).
- Overall commitment to and satisfaction with college: The extent to which students feel they have selected the right institution for their aspirations, the sense that they would select the institution again, given the chance, and the confirmation that they would recommend the institution to a classmate or friend.

Methodology

Employing a three-phase, mixed methods sequential approach, this descriptive, longitudinal study was administered over a 14 year period (1990-2004). Using key informant interviews to

develop the instrument, a survey questionnaire was piloted and refined in the fall of 1989, and administered for the first time in the spring of 1990. Following the biennial administration of the survey questionnaire, and subsequent analysis of the data, focus groups were conducted to confirm and clarify quantitative results. The program was administered to all full-time degree program students in alternating spring semesters.

The questionnaire was internally developed, using several national benchmark instruments as models (ACT, SSI, CSEQ). While locally developed instruments are limited by the lack of comparison with national norms data, they allow an institution to focus on particular issues of concern that may be compromised by a broadly developed instrument.

Response rates ranged from 30-40% over the course of the 14-year period, which is a range considered actionable for specialized student populations (NSSE, 2001).

Research Phases

Phase I (Qualitative). Exploratory key informant interviews were conducted to identify themes and language for questionnaire development. In the fall term, prior to the scheduled spring administration, student leaders were invited to participate in personal interviews. An analysis of key words and themes formed the basis for the questionnaire's content. Approximately 4-6 interviews were conducted until content saturation was reached.

Phase II (Quantitative). A census of full-time degree program students (undergraduate and graduate) was included in the study. The questionnaire was administered during the second week of spring semester in alternate academic years. Prior to mailing the questionnaire, each student was invited by the President and the Provost to participate in the project. Questionnaires were mailed a few days later, with a SASE enclosed to facilitate response rates. A three-wave reminder program was employed to further boost response rates.

Instrumentation. The instrument incorporated questions that addressed the six dimensions for student growth, segmenting the survey. The questionnaire consisted of 38 standard items, each rating the satisfaction with an item, or the respondent's agreement with an item. Twenty-three questions rated satisfaction, while 15 questions rated agreement, using value-laden statements. Within each of sub-section, students were asked to respond to summary items, including their overall satisfaction with the college and their interest in re-enrolling if they had the chance. Five-point likert-type response scales were provided, with an additional option for "not applicable".

Nine questions solicited demographic information. Items were standard (gender, class year, major) but also included items that specified a student's financial aid, and campus housing status. Two or three open-ended questions concluded the survey during each administration, allowing for personal opinions and concerns to be expressed in the student's own words.

Phase III (Qualitative). Following administration of the survey questionnaire, focus groups were conducted to supplement and clarify issues that surfaced through the editorial comments and to address variances identified in quantitative findings. Interview protocols were developed based on an analysis of the data. Participants were randomly selected (every 10th student name selected from student enrollment lists) and were invited to lunch or dinner sessions on campus (incentive) later in the spring semester. Three focus groups were typically conducted; group sizes ranged from N = 7-15 participants over the course of the project, with an average of N = 8 participants in each group. Analysis of these discussions provided rich descriptions of student interests and concerns, and nonverbal and key word analysis comprised the findings.

Demographics

An analysis of the response sample was conducted to identify whether the universe (U) profile mirrored the respondent population (R) for key demographics (gender, major, class year, ethnicity, financial aid recipient, housing status). Over the course of the project, a slightly greater number of undergraduate females responded to the questionnaire than any other population subset.

Data Analysis

Simple, descriptive statistics (frequencies, cross-tabulations) formed the basis for data analysis. Group scores were analyzed, using combination response categories of strongly agree/agree or very satisfied/satisfied. Mean scores, distributions, and variances were calculated to identify response trends. Editorial comments were analyzed for thematic patterns. Cross-tabulations were conducted for key questions, comparing satisfaction ratings with demographics and agreement statements.

Student subgroup responses were analyzed for variations in perceptions and attitudes. Subgroups analyses included class year, original entry, major department, gender, ethnicity, financial aid recipients, and international students.

Results

Dimensions of Student Learning

Dimension #1: Educational experience. Students were increasingly ***highly satisfied- satisfied*** with the quality of instruction in their major over time (78% in 1990 compared with 85% in 2004). When asked to rate their sense of growth as a student, respondents consistently indicated significant satisfaction (~92% rated ***highly satisfied-satisfied***). On average, 78% felt that their major courses were intellectually challenging and exciting; freshmen expressed the greatest satisfaction with their major courses, seniors were the least satisfied.

Dimension #2: Development of skills & knowledge. Students overwhelmingly agreed that they acquired valuable skills and knowledge and developed critical thinking and problem-solving abilities while at the institution (94% ***strongly agreed-agreed*** for skills & knowledge, 87% ***strongly agreed-agreed*** for problem solving, critical thinking).

Dimension #3: Faculty contact. While academic advising issues were rated somewhat less favorably, ratings improved steadily over the duration of the study. By 2004, fifty-two percent (52%) of respondents rated their satisfaction with the quality of academic advising ***very satisfied/satisfied***, compared with the 37% who rated advising ***very satisfied/satisfied*** in 1990. Similarly, in 2004, sixty-nine percent (69%) of all respondents felt that faculty were deeply interested in them as students, as compared with only 51% who felt that way in 1990.

Students reported that they were moderately satisfied with faculty accessibility and interactions with faculty. In 2004, seventy-four percent (74%) agreed that faculty cared about them and were easily accessible, (up 12% points from 1990). These data prompted cross-tabulation analysis of the ratings, broken out by departments. The variances across student majors/departments suggested further exploration of the issues and inconsistencies through focus group discussions.

Dimension 4: Personal & social life. Student satisfaction with personal life issues remained relatively stable since the beginning of the program in 1990. Seventy-four percent (74%) indicated modest satisfaction in 2004, compared with 70% in 1990. Satisfaction with social life growth improved slightly, with 60% (2004) agreeing that social life programming improved, compared with 50% in 1990. However, cross-tabulations revealed that social and personal life ratings declined for each class year subset, and graduate students indicated the greatest dissatisfaction, as did international students.

Dimension 5: Sense of community. Students experienced the greatest sense of community within their academic departments, as evidenced by improved ratings (71% in 2004 vs. 59% in 1990), while ratings of the overall sense of community reached 54% by 2004 (compared with 40% in 1990). Not surprisingly, freshmen experienced the greatest sense of community (75%)

compared with fifth year students and international students (30%), due to the nature of first-year programs. Once students enter their major departments in their sophomore year, their sense of isolation increases.

Dimension #6: Overall commitment. By 2004, seventy-nine percent (79%) of all respondents felt that the college met their expectations, compared with 53% in 1990. Freshmen felt most positively about this issue (90%), while male/female rankings consistently indicated a gap (m~75%, f~81%). When asked if they would choose the college all over again, 74% agreed in 2004, compared with only 57% in 1990.

Ratings of overall satisfaction with the college experience remained relatively unchanged over time, with 87% of respondents indicating ***very satisfied/satisfied*** in 2004, compared with 85% in 1990; satisfaction ratings were consistently high across all student subgroups.

Focus Group Results

Quantitative findings prompted focus group investigations. Issues varied with each survey cycle, but one issue that continually surfaced was the link between a student's sense of community and their affiliation with their major/department.

Several authors have identified the impact that departmental culture and climate have on student learning and satisfaction (Cameron & Ettington 1988; Hartnett & Centra 1977; Umbach & Porter, 2002). To what extent do individual departmental characteristics, such as size, diversity, faculty contact and the quality of interactions with students and faculty affect student satisfaction and retention? While the assumption was made that students majoring in smaller departments would likely be more satisfied with their college experience (due to an increased amount of attention and interaction with faculty, students), cross-tabulation findings contradicted this assumption. Focus group discussions were conducted to probe this issue. The end result was

that the *quality* of faculty-student interactions rather than the *extent* of those interactions was key to student satisfaction. Departments where faculty were more effective in building community and maintaining open communications were more likely to engage students and enhance relationships, regardless of department size. In some smaller departments, students felt disengaged and isolated largely because of the quality of their interactions with faculty, and because of poor internal departmental communications.

Another issue that surfaced during the early years of the survey program was the distinction students made between personal and social life satisfaction. Ratings of social life and programs were inconclusive, indicating that the survey wording was unclear to respondents. Additionally, ratings of programs in these domains ranked ***fair to poor***, despite high participation levels. Focus group discussions revealed that students made a distinction between social life (programming constructed for them by the college) and personal life (self-directed, private activities). Survey language was modified, thus improving the clarity of the questions and increasing content validity.

Student assessment of campus services showed little improvement over the multi-year period (advising, registration, computer resources, counseling). Several administrative interventions were introduced to address these long-standing frustrations, including the consolidation of all student services into a single location to facilitate student access and to enhance collaboration and communications among student services personnel.

Summary of Major Findings

As an initiative of the institution's strategic planning process, this study investigated those factors that ensured and improved student satisfaction and persistence:

1. *The quality of instruction proved to be an essential factor in student persistence and satisfaction. Students were consistently* ***highly satisfied*** *with the quality of academic instruction and challenge of the curriculum;*
2. *Academic rigor was identified as another factor contributing to student satisfaction. Students* ***strongly agreed*** *that they had developed critical thinking and problem-solving skills during their tenure at the college;*
3. *Close relationships with faculty, especially as part of the advising process, were key to student connectedness. Student ratings regarding access to faculty and the quality of their interactions with faculty improved over time, especially in the area of academic advising;*
4. *Personal development and opportunities for social connections served as foundational elements for students – the more they felt they belonged, the more likely there were to persist through graduation. Students emphasized the distinction between personal growth and social growth, and ratings in both areas saw substantial increases, overall. However, as students progressed through their class year, their dissatisfaction increased slightly;*
5. *One of the key ingredients contributing to student satisfaction and persistence was revealed in the student's identification and integration with the campus community. Students expressed their greatest sense of community within their major departments,*

although first-year students expressed their greatest sense of community with the college, at large;

6. *Persistence can be measured in many ways, but one measure – institutional commitment – was identified to the extent that students felt the "institutional fit" was right for them. Students reinforced their overall commitment to the institution by* ***strongly agreeing*** *that they would choose the college again, given the chance, and by* ***strongly agreeing*** *that the institution had met their expectations.*

Student retention and graduation rates increased steadily over the duration of this study;

a. *Aggregate annual persistence rates increased from 90% in 1990 to 93% in 2004*
b. *Freshman to sophomore persistence rates increased from 87% in 1990 to 94% in 2004*
c. *Graduation rate, beginning with cohorts first entering in 1987, increased from 86% to 90% by the conclusion of this study.*

While many factors can be linked with these increased rates, these findings suggest that institutional efforts to strengthen student satisfaction played some part in increasing persistence and graduation rates.

Implications for Practice

Student survey results can be used to identify challenges and areas for improvement for college campuses. Campuses that systematically measure and act on measures of students satisfaction appear to enjoy the greatest levels of institutional and student success (Bryant 2006). Furthermore, survey results help college leaders prioritize goals and initiatives for strategic

planning and retention programs. Specific initiatives undertaken by this college in response to survey findings included:

- Continued and substantial investment of resources to sustain and enhance academic quality, rigor, and the breadth and depth of curriculum;
- Significant investment for faculty salaries and faculty development funds, to ensure a highly qualified and diversified faculty;
- Increased funding for recruitment and marketing programs in order to attract the most highly qualified and talented students into the programs, and to better market the institution by clarifying its strengths to potential students and parents;
- Creation of key programs and staff positions to support campus diversity, student life programs, major building and renovation program for campus facilities and a commitment to increase student housing by 50% over a 10 year period;
- Development of a rationale to create a case statement for a capital campaign;
- Creation of the foundational elements for an upcoming accreditation visit and self-study.

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