An exploratory study of student satisfaction of the Rowan University Recreation Center

Joseph J. Dougherty III
Rowan University

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AN EXPLORATORY STUDY OF STUDENT SATISFACTION OF THE ROWAN UNIVERSITY RECREATION CENTER

By
Joseph J. Dougherty III

A Thesis
Submitted in partial fulfillment of the requirements of the Master of Arts Degree of
The Graduate School at
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Approved by
Professor

Date Approved
July 28, 2003
The purpose of the study is to explore the extent of student satisfaction with the Rowan University Recreation Center. A convenience sample of 151 students who frequented the recreation center was used to determine students’ perceptions of the facility on a number of factors. The study showed that the recreation center rated higher than all other comparable student services both in importance to the student and satisfaction with the service provided. The recreation center was also very successful in terms of getting students involved, much more so than any other campus group or activity. The results showed that the recreation center was very important to those who use it, and they were also very satisfied and very involved leading to high rates of student satisfaction.
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CHAPTER 1

Introduction

The purpose of this research is to explore how students’ satisfaction with their collegiate experience is influenced by the student recreation center at Rowan University. It is hypothesized that offering a recreational facility that can sufficiently accommodate a large proportion of the student population’s needs can increase student satisfaction as well as potentially aid in recruitment and retention of students. Research done at Bowling Green State University showed that 42% of the students described the student recreation center as “somewhat” or “extremely important” in their decision to attend the university. A year later, 78% of respondents felt that the recreation center was “somewhat” or “extremely important” to their personal well being (Parsons, 1990). Research done by the National Intramural-Recreational Sports Association showed that heavy users of campus recreation centers were happier than light users and nonusers (Downs, 2003). Also, those who participate in recreational sports identify recreation centers and the services provided by them as key determinants to satisfaction and success in college (Downs, 2003).

One of the most pressing issues facing colleges and universities today is retaining enrolled students through the completion of their degree. Extensive research has been done on all aspects of why students leave schools and what factors are important in
retention and degree completion (e.g., Stodt & Klepper, 1987; Braxton, 2000; Kuh & Whitt, 1988; Tinto, 1993). One of the consistently recurring themes in the literature is that of the importance of student satisfaction with their experiences at the school they attend. "Students’ satisfaction with their college experiences and their involvement with their institutions have been described as highly significant in the literature discussing both the benefits of a college education and student retention" (Stodt & Klepper, 1987).

Research has further shown that recreational facilities are very important to students’ involvement in and satisfaction with their universities (Parsons, 1990). Such facilities provide opportunities not only to enhance students’ levels of physical fitness, but they also offer great opportunities to become involved in the institution and interact with other students.

Tinto, as well as Pascarella and Terenzini, are among higher education’s leading advocates in maintaining that student involvement is an essential component in retention of students through graduation. He suggests that motivation is directly related to the students’ academic and social integration in their institutions (Tinto, 1993). The greater the degree of integration and the more the students can become a part of the college community of professors and peers and share the values and beliefs that are a part of the fabric of the institution’s culture, the better the chances they have to reach their academic and career goals (Pascarella & Terenzini, 1991).

There are two factors that are especially relevant to student satisfaction. They are student centeredness and having the opportunity to participate. Typically, small institutions have much more success in providing the feeling of being student centered.
The smaller size of these institutions allows for a much tighter knit community, as well as for many more opportunities to interact with a higher percentage of the student population and faculty. In larger institutions, like Rowan University, this feeling must be created by allowing opportunities for smaller groups of students to interact in smaller communities based on common interests (Blimling, Whitt, & Associates, 1999). It is my belief that the Rowan recreation center provides one of those potential niches where students who have interests in the area of physical fitness or general recreation can participate with other like-minded students and develop a feeling of community.

Another factor previously mentioned is the importance of providing opportunities for student participation in a range of activities. The more opportunities made available to the students, the more they will feel a part of the community of the institution. "Students who participate in student government, cocurricular clubs and activities, and fraternities and sororities are able, with the assistance of student affairs professionals, to translate new skills and college experiences into career enhancers and to gain a greater understanding of the larger society" (Blimling et al., 1999, p. 173). In a study comparing athletes who participated in either varsity or intramurals with non-athletes, it appeared that participation had a positive effect on retention and satisfaction as well as degree aspirations (Ryan, 1963). The recreation center at Rowan potentially provides an excellent resource to facilitate this sort of involvement.
CHAPTER 2
Review of the Literature

People have known that benefits could be gained by participating in recreational sporting activities since the time of early civilizations. The ancient Greeks were the first to use athletics in a way similar to how it is used today. They were the originators of the first Olympic games and especially, in Athens, sport was used to display strength, fitness and courage. It was looked upon not only as a leisure activity but also was considered an obligation to the state (Mull, Bayless, & Ross, 1983). Throughout the times following the Greeks, many cultures have placed varying importance on recreational sporting activities. Generally speaking, the more established a civilization became, the more time and interest its citizens had in sport and athletics. The more established a culture became, the less its citizens had to fight for their own survival and the more time they could spend in leisure activities (Mull et al., 1983).

Recreation and physical education curricula have existed in the educational system of the United States in some form or another almost since it was recognized as a sovereign nation. It was in the first 60 years of the United States that physical activity for the sake of fitness began. While it was not common, early reformers began to show evidence of the benefits of physical education, and it began to be worked into grammar school curriculum (Mull et al., 1983).
It is only recently though that recreation facilities have become instrumental parts of student service facilities on college and university campuses and, in order to understand fully the advent of the modern campus recreation center, I’ve chosen some highlights along the timeline of recreational sport history and describe them in the ensuing paragraphs.

**Early Attempts at Sports and Recreation**

The first recreational group associated with leisure activities in the colonies was the Charleston Jockey Club founded in Virginia in 1734 (Mull et al., 1983). Virginia, one of the first and more established of the new colonies, would figure to be the first to have a recreational sporting association.

On the campuses of the nation’s earliest colleges, recreational athletics were discouraged, and the development of formal athletic activities were hindered by faculty and administration. At Princeton, in 1787, the faculty forbade students from participating in strenuous games on the grounds that it was not proper behavior for gentlemen or scholars (Rudolph, 1962). Even as late as 1820, the faculty at Rensselaer Polytechnic Institute (R.P.I) stated that, “Such exercise as running, jumping, climbing, scuffling, and the like are calculated to detract from the dignity of deportment which becomes a man of science” (Rudolph, 1962, p. 151).

In terms of campus recreational facilities, the first landmark was the establishment of a military gymnasium on the campus of the United States Military Academy at West Point in 1817. This gymnasium, while groundbreaking in terms of campus recreation, was very dissimilar to what we’ve become accustomed to today in terms of gymnasiums.
For example, this gymnasium was built almost 75 years before Dr. James Naismith even invented the game of basketball, so the West Point gymnasium was most definitely devoid of basketball hoops customary in modern gymnasiums (Mull et al., 1983).

In 1826, Charles T. Follen brought the first official form of physical conditioning to American higher education from Europe in the form of an outdoor gymnasium. He started his introduction of gymnastics in a Harvard dining hall before erecting the apparatus outside. Within the next two years these outdoor gymnasiums popped up at at least six different institutions including Yale, Amherst, Bowdoin, Brown, Williams and Dartmouth (Rudolph, 1962). As it turned out, this development was premature and these outdoor gymnasiums fell by the wayside for different reasons. First, anything involving play and recreation went completely against the Puritan work ethic upon which many of the first universities were based. Also, most of the students were young men who were much more interested in participating in sports and leisure activities that were more common to their native environments such as bowling, boxing, hunting, swimming, wrestling and some rudimentary forms of football and baseball (Rudolph, 1962).

In 1843, the first collegiate sporting team, a rowing club, was established at Yale (Mull et al., 1983). Moreover, in 1852, the first intercollegiate sporting event, a rowing contest between Yale and Harvard, was held at Lake Winnepesaukee (Mull et al., 1983; Rudolph, 1962). In 1859, at Pittsfield, Massachusetts, Williams hosted Amherst in the first intercollegiate baseball game. Within ten years, baseball was a nationwide sport and other institutions began to field teams throughout the country (Rudolph, 1962).

In the 1850’s, athletics really began to creep into the fabric of the higher education system. There was evidence that evening prayers were eliminated from the
daily schedule in recognition of the advent of outdoor sports and the development of collegiate athletics. In 1861, this became official when the first men’s physical education program began at Amherst College in Massachusetts (Mull et al., 1983). The inscription on the gymnasium at Amherst provided the motto: “Keep thyself pure: the body is the temple of the Holy Ghost” (Rudolph, p. 153, 1962). This was evidence of a new way for the administration to go about stressing an old ideal to the students based on their interests at the time (Rudolph, 1962). Then at Vassar College, in 1865, the first women’s physical education program was established (Mull et al., 1983).

In 1869, Princeton played Rutgers in the first intercollegiate football game. This marked a watershed moment in collegiate athletics. In the next ten years football grew exponentially in every way at American higher education institutions. In 1873, Michigan challenged Cornell to a game in Michigan. The President of Cornell laughed at what he considered a ridiculous idea. Yet, by 1881, Michigan’s team traveled to play Harvard, Yale and Princeton. The growth of football created a need among colleges and universities to come up with some sort of regulations. The intensity of competition and the need to win blurred and sometimes obliterated the lines of ethical competition. In the 1880’s the President of Miami University of Ohio all but required his faculty members to participate on the team. Another incident in the 1890’s found the University of Oregon playing three consecutive games against three different schools, but the other schools enlisted a team of ringers and the Oregon squad played the same team of ringers every time (Rudolph, 1962).

This rapid growth continued until 1905, when the violence, lack of ethics, and brutality of the game became national news. It forced President Theodore Roosevelt to
announce that if colleges did not clean up the game on their own accord it would be abolished by executive order (Rudolph, 1962).

Football was able to survive and flourish because it was able to bring many other positive aspects to the early college communities. In a speech at Harvard in 1907, President Roosevelt himself voiced support for the game when he said: “As I emphatically disbelieve in seeing Harvard, or any other college, turn out molly coddles instead of vigorous men I may add I do not in the least object to a sport because it is rough” (Rudolph, p. 378, 1962).

Football was instrumental in diminishing class distinctions which at the time was a concern of many institutions. President Hadley of Yale saw football as a democratic solution in that it took “hold of the emotions of the student body in such a way as to make class distinctions relatively unimportant” and united the students “in the old fashioned democratic way (Rudolph, p.378, 1962).

Football also brought about a rift in collegiate athletic departments and has set a double standard which exists to this day. Once sports were accepted as mainstream entities in American institutions, losing was not an option. The American culture did not stand for failure, and the competition between institutions was a fight for respect as much as a competition on the field (Rudolph, 1962). Football created an almost professional level in intercollegiate sports that practiced and drilled with the goal of seeking perfection. At the same time institutions recognized the need for the average student to engage in fun, competitive, physical activities. This marked the dawn of intramural sports at institutions of American higher education. These intramural sports served not only as an outlet for students but also as a training ground for the varsity teams (Rudolph,
1962). Thus, in 1904, recreational sports on campus was taken to the next level when Cornell began the first intramural sports program at a college or university (Mull et al., 1983).

In 1891, recreational sports progressed even further when Dr. Naismith developed basketball, a sport that could be played indoors and involved many students in his physical education class (Mull et al., 1983). In 1905, intercollegiate sports became more organized and standardized with the development of the Intercollegiate Athletic Association, which later became what we now know today as the National Collegiate Athletic Association (NCAA). In 1920, recreational sports continued its institutionalization in American culture with the founding of what is now known as the Big Ten Recreational Sports Directors Conference. In 1950, that group spawned a national organization known as the National Intramural Association (Mull et al., 1983).

**Campus Recreation Facilities**

In recent history, the most notable developments in campus recreation have been facility oriented. One of the measuring devices used by campus administrators in assessing the satisfaction of students is retention. Starting in the mid-1980's, the transition from single structure multi-use field houses which were occupied by varsity athletics teams as well as the rest of the student body moved toward separate multi-purpose facilities which separated varsity athletics facilities from general campus recreation facilities (Mull et al., 1983). This transition allowed institutions to build state-of-the-art fitness facilities to recruit and retain students (Yakutchik, 1993). The new wave of facilities as well as programming and assessment began in the Midwest. Pat
Besner, director of recreation at the University of Toledo, explains that this is most likely due to the weather and the fact that these institutions are land locked (Yakutchik, 1993).

Until the rise of the modern recreation center, physical fitness facilities were not mentioned as factors in why students chose to enroll or remain at school. Now, it is ranked as the third most influential reason for selecting a school (Yakutchik, 1993).

**Relationship to Recruitment and Retention**

Recruitment and retention are important topics in higher education. Retention especially has proved to be a strong motivation for all areas of student services, due to the importance in the way that it impacts on an institution’s reputation (Haines, 2001).

The problem of students leaving college before the completion of their degrees is an old and well-documented problem in higher education (Tinto, 1993, Blimling & Whitt, 1999). More students will leave the college they first entered than will complete their degree. In 1986, of the 2.8 million people who entered college, 1.6 million dropped out, and 1.2 million will never attain either a two or four year degree. Vincent Tinto, who may be the foremost researcher on this topic, suggests that while it is valuable for colleges and universities to increase retention, that should not be their primary goal. Rather, it should be a by-product of their efforts to focus on their students’ educational, social and intellectual development (Tinto, 1993).

There are important considerations regarding student retention that must be understood when reviewing the literature. Most of the discrepancies in defining retention stem from two different ways to categorize retention as distinguished in the research. The two types are institutional departures and system departures. Institutional departures
are made by students who leave their initial college or university before completion of their four year degree. These students may or may not transfer to another institution where they can attain their degree. System departures are made by those students who leave the college and university system altogether. This means that after they leave their initial college or university, they do not transfer to another institution, and they do not attain a degree.

Retention is a concern for colleges and universities today largely because of the magnitude of the problem. According to research done in 1983 by the U.S. Department of Education, about 45% of all students who enter college for the first time begin their college careers at four year institutions. After two years, nearly 44% of those will have dropped out of the institution they initially selected to attend. The typical four year college can expect a total rate of institutional departure of about 56% for the average entering cohort. The 44% who remain to completion of their degree from their first institution will be joined by about 17% more who will achieve their degree from another institution. So, in the typical cohort, 61% will graduate, and 39% will be dropouts from the higher education system as a whole (Tinto, 1993).

With respect to my research concerning the recreation center at Rowan University, I'll be dealing with just institutional departures since the purpose of the research is to examine if there is anything which leads me to believe that the Recreation Center facility in any way aids in retention or departure of students at Rowan University.

Retention can be improved by many factors. The literature reviewed has suggested that student involvement, student motivation, inclusion in small social circles, and student-faculty involvement both in and out of the classroom are all factors that
influence institutional student retention. One theory that was posited by Whitehead in 1929 and has been continued by more recent researchers, (e.g., Kuh, 1996; Blimling & Whitt, 1999) is that of a seamless learning environment. The basis behind this theory is that all aspects of the university, i.e., in-class, out-of-class, curricular, and co-curricular, all need to work together in unison to create the optimum learning environment. The organizational framework of a university, including a series of very specialized and autonomous divisions, all have their different ideas on how their departments should be run (Blimling & Whitt, 1999). The cooperative effort of all the departments needs to be based on an atmosphere of learning for the students. Added to this mix should be the student affairs practitioners who play important roles on two levels. First, their focus, according to Blimling and Whitt (1999), is to extend the learning environment outside the classroom and into the residence halls and campus activities. The second focus of student affairs practitioners should be to improve the learning environment by creating opportunities for successful student and faculty interaction. I've found that successful student and faculty interaction both in and out of the classroom is highly regarded as instrumental to institutional student retention (Stodt & Klepper, 1987; Blimling & Whitt, 1999). In fact, forming a bond early in a student’s college career may be one, if not the most important, factor in a student’s decision to remain in his/her institution (Pascarella & Terenzini, 1980). Pascarella and Terenzini have also shown that what happens after a student enters college is more of an indication of their retention through graduation than any pre-enrollment characteristics. Maas (1999) and Ryan (1963) have both determined that participation in college sports and recreational athletics are two of the biggest determinants of retention through graduation.
Opportunities for successful student-faculty interaction include service learning, attendance at athletic events, student organizations such as the school paper, student government, and clubs on campus. These emphasize similar interests and hobbies and are all excellent out-of-the-classroom opportunities for student interaction with faculty which can be facilitated by student affairs practitioners. While it is apparent that recreation centers can facilitate important involvement and interaction, there has been very little research done to show that, to this point, they’ve produced any results in the area of involvement.

Current Research on Campus Recreation Facilities

Most current research concerning recreation centers has been done by large research institutions, primarily those in the midwestern United States. Early research simply reported descriptive data concerning the number of people using the facilities, program attendance, and budgeting. More substantive data regarding the physical and psychological benefits of recreation centers have only been reported for the last 20 years or so.

In the 1980’s, Dr. Terry Parsons, director of the Recreation Center at Bowling Green State University, initiated the first meaningful study of campus recreation centers. He conducted a longitudinal study and discovered a positive correlation between both higher levels of retention rates and graduation rates for those who participate in recreational sports as well as recreational sports employees when compared to the general student body (M. Dunn, personal communication, Dec. 8, 2002).
In the early 1990's, the National Intramural and Recreational Sports Association (NIRSA) designed and piloted the Quality and Importance of Recreational Services (QIRS) tool which is a survey to do a more in-depth and qualitative assessment of recreational sports facilities and programs. It was designed as an assessment tool to investigate programs and facilities, not just in terms of the sheer number of participants, but also using criteria such as satisfaction and how well the facilities and programs actually meet the needs of students. The questions focus on four major themes: (a) lifestyle, (b) experiences in recreational sports, (c) importance of and satisfaction with recreational sports facilities and programs, and (d) self-ratings related to the personal benefits gained from recreational sports. The QIRS survey was piloted at six institutions: Bowling Green State University, Oregon State University, University of California at Los Angeles, University of Tennessee-Knoxville, Vanderbilt University, and Vincennes University (Junior College). The QIRS survey has also been used by others and has been modified and tailored to meet the needs of individual institutions.

The pilot project surveyed a total of 2,586 students from the six different institutions. The results showed that approximately 95% of all students responding said that recreation will be somewhat important to them after graduation. Ninety-five percent also responded that they would like to participate in recreational activities each week. Students expressed satisfaction with almost all aspects of recreational programs, services and activities. Minority and female students appear to have reaped greater benefits from participation than their counterparts. The eight benefits to which students gave the highest marks were: stress reduction, feeling of physical well-being, sense of accomplishment, weight control, sport skills, physical strength, fitness, friendship.
Among 10 listed student services activities in various areas of the campus, the top four, which involved at least 40% of the students surveyed, included: informal/free play activities, intramural sports, aerobic/fitness programs, and weight training (Center for Assessment Research and Development, 1991)

Many of the most recent, though unpublished, studies about recreational facilities have been conducted at the Ohio State University. The impetus for most of these studies was the development and construction of a new mega-recreational sports complex. The idea of such a massive structure must obviously be fully researched before any institution commits to such an expense. Ohio State is currently in the midst of a study, which began in the spring 2002, using the QIRS instrument as a baseline. The same study will be replicated in 2006 and 2007 after the completion of the mega-complex. The study specifically investigates the quality and importance of recreational services at the university and their relationship to student recruitment, retention, and satisfaction levels of recreational facilities, programs and services and all the benefits obtained through involvement (M. Dunn, personal communication, Dec. 8, 2002).

The Ohio State University Department of Recreational Sports has also done many studies prior to this major research project in the past three years. They have done in-depth studies delving into all aspects of facilities and programming. From these data, they have established demographic profiles of both the typical user and the typical employee in the different areas associated with recreational facilities and programming. These data not only have been very useful in establishing learning outcomes but have also proved useful in increasing diversity by targeting the aspects of recreational sports that seem to attract women as well as racial and ethnic minorities which are specific target groups for
the Ohio State University. The data collected from this research suggest that fitness programs, services, student employment, and intramural and club sports have been very useful in assisting the university’s administration in achieving its goals of increased diversity throughout the student body (M. Dunn, personal communication, Dec. 8, 2002).

Summary and Study Questions

The literature suggests that there has been progress made in the last 20 years in assessing the extent to which student satisfaction is affected by having quality campus recreation centers and programs. Yet it also appears obvious that there is more work still to be done. Hopefully, through further research, the professionals involved in running recreational facilities will be able to pinpoint what programs and facilities specifically meet student’s needs and improve the quality of campus life throughout the country (Lewis, Barclona, & Jones, 2001).

Prospective students in our country are afforded a wealth of options from which they can choose when they are deciding where to attend college. This allows the students to be much more discriminating than in the past about where they choose to enroll. The importance placed on student satisfaction cannot be overstated.

We also live in a culture where a great degree of emphasis is placed on sports, fitness, and overall physical well being. This cultural trend does not exclude college and university campuses. Institutions all over the country are spending millions of dollars to fund bigger and better campus recreation centers. What has not kept up with the times is the evaluative research to assess how well the recreation centers are serving the students.
In this research project I hope to find answers to the following questions. How important is the Rowan recreation center to students' satisfaction on the campus? How satisfied are students with the services provided by the recreation center in comparison to services provided through other student services? Does the Rowan Recreation Center contribute to the recruitment or retention of students? Finally, to what degree is the Rowan recreation center successfully meeting the needs of the students and what else can be done to improve the service it provides?
CHAPTER 3
Methodology

Context and Setting for the Study

Rowan University opened in 1923 as the Glassboro Normal School. It began as a teacher’s training institution and, in 1937, changed its name to the New Jersey State Teacher’s College at Glassboro. Since that time its reputation for education has become nationally recognized.

Between the years of 1935 and 1944 the institution thrust itself to the forefront of the special education movement and gained national recognition by opening clinics for reading development and physical therapy.

In 1958, the school changed its name to Glassboro State College to reflect the new direction in which it was going. Throughout the 1950’s the college began to expand in many ways. The curriculum expanded to offer degrees in many subject areas other than education. The student enrollment as well as the size of the campus and its facilities also grew in leaps and bounds throughout this time.

In 1967, the campus became known worldwide when it hosted the historic summit conference between President Lyndon B. Johnson and Soviet Premier Aleksei Kosygin which was instrumental in easing the tensions of the Cold War.

In 1992, Henry and Betty Rowan donated $100 million dollars to the institution. At the time, this was the most money ever given to a public college or university in the history of American higher education. This gift served as a launching point for the period
of greatest change and growth ever experienced by the institution. Throughout the 1990’s the institution added the colleges of engineering and communication as well as becoming a doctoral granting institution. The name of the school was changed to Rowan College and later Rowan University after reaching full university status in 1997.

Rowan University currently offers a Graduate School and six colleges including Business, Communication, Education, Engineering, Fine & Performing Arts, and Liberal Arts & Sciences. Rowan's student enrollment now numbers almost 10,000. It includes 31 undergraduate majors, 7 teacher certification programs, 25 master's degree programs and a doctoral program in educational leadership. The campus is set in the town of Glassboro, a rural area in southern New Jersey approximately 20 miles from Philadelphia.

The Recreation Center at Rowan University evolved because a severe shortage of physical recreation space existed at the college by the early 1980’s. The existing Health, Physical Education and Athletic facility was constructed in 1963 and housed physical education classes and athletic practices and contests. Because of the growth of athletics and the addition of new sports, this facility reached its maximum usage. As a result, recreational use of the space by students was severely limited; only 10% of the scheduled use of the facility was dedicated to intramural and recreational activities (T. Pinocci, personal communication, June 30, 2003).

With the addition of new residence halls in 1984, the on-campus population increased by over 500 students, bringing the total residential student population to 2,000. This placed additional strain on the university to meet the recreational needs of the growing campus as well as provide a viable alternative to alcohol-related functions throughout the community. On April 25, 1988 the Student Government Association
sponsored and passed a referendum in support of a new recreation center. This resolution
granted the university the power to assess student fees to fund such a project. Most
importantly, the students would finally have a facility dedicated solely to recreational
sports and activities (T. Pinocci, personal communication, June 30, 2003).

Construction began on the new $8.7 million facility in the fall 1991 and the
Student Recreation Center opened its doors officially in January 1993. The 76,000
square foot facility houses a 3-court gymnasium, 25 yard pool and diving area, group
exercise studio, fitness and free weight room areas, 5 racquetball courts, suspended track,
conference room and locker/shower facilities. Recent renovations include a
juice/smoothie bar in the lobby area and additional office and fitness testing space on the
second floor.

Since its opening, the Recreation Center has served as a primary center of activity
at Rowan. Programming areas focus on intramural sports, or the competitive aspect of
our program, with over 3000 students participating in 15 sports. Group exercise classes
and fitness programs make up the bulk of our programming, with over 150 classes and
activities planned and over 4000 participants. In addition, over 25 instructional classes
and special events are held throughout the year, with total participation of approximately
3500 students. Informal, or drop-in, recreation accounts for approximately 80% of the
usage, as the facility averages nearly 1000 members through their doors each day during
the school year (T. Pinocci, personal communication, June 30, 2003).

The Rowan University Student Recreation Center joins in partnership with other
service and academic areas on campus to improve the quality of life for students, faculty,
staff, alumni and associates by providing varied and diverse recreational opportunities.
The ultimate goal of the Center is to convey to the university community the enjoyment and satisfaction that can be experienced by making recreational activity an element of their daily lives. The programs and services offered provide opportunities for individual development of knowledge, interests and behaviors that promote and contribute to a healthy, well-rounded lifestyle. This mission reflects the university's commitment to developing the "whole student" (T. Pinocci, personal communication, June 30, 2003).

Subjects and Sample

The population under study included students who used the campus recreation center. A convenience sample of center users was identified from walk-in clients. A convenience sample seemed to be the best implementation of the survey instrument. From records kept at the recreation center, it had been determined that nearly 50% of the student body used the recreation center. This sample of convenience serves as an approximate (though non-random) representation of roughly half of the student enrollment which should contribute to the power and validity of the study. In order to get the best possible data, it seemed best to survey those who could best fill out the entire instrument.

Instrumentation

The survey was modeled after the QIRS, which, as previously discussed, was developed by NIRSA specifically for the purpose of assessing campus recreation centers. The content of the survey can be broken down into three sections. The first section addressed selected demographic information about the subject. The second section
explored student involvement in various student organizations as well as explored the satisfaction and importance with which the students regarded various student services on campus. The third section dealt directly with the recreation center. It elicited information regarding the frequency of use, reason for use, as well as students’ attitudes and perceptions about what they liked best about the center and what they would like to see changed.

Data Collection and Analysis

The surveys were distributed throughout the entire time the recreation center was open for business over a period of 3 days in May 2003. They were distributed by student workers and professional staff who regularly manage the reception desk at the recreation center, who were given instructions to encourage students to fill out the questionnaire, as the results would benefit the recreation center. Approximately 200 questionnaires were distributed, and 151 usable responses were returned (77%). Using SPSS, data were compiled and analyzed. Frequencies for each question were tabulated, and the results of the data collection follow immediately.
CHAPTER 4
Findings and Discussion

Demographics

In the sample, 92% were traditional college-aged students between the ages of 17 and 22. There was almost exactly an equal number of men and women surveyed. Of those surveyed, nearly 15% were minority students. In the sample, 31% of those surveyed were in the senior class, 26% in the junior class, 22% in the sophomore class, and 20% in the freshman class while less than 1% reported themselves as of another classification. Seventy-four percent of the students surveyed entered Rowan as freshman students, and 26% came as transfers from another school. Nearly all of the students surveyed were enrolled as full-time students. With respect to living arrangements, 53% of those surveyed live on campus, 35% live off campus and 12% percent commute from home. Nearly all students (98%) reported that they intend to graduate. These data suggests that the profile of respondents is generally representative of the student body as a whole on a number of dimensions.

Survey Results

The statistics show that 92% of those surveyed feel that the Rowan recreation center was either important or very important to their satisfaction (Figure 1). Moreover,
98% of those surveyed report that they were either satisfied or very satisfied with the services provided by the recreation center. This is a very high percentage especially when you put it in context of comparable data about other student services (Figure 2).

After the recreation center, the second highest ranked student service in terms of importance to student satisfaction was the library at about 83% (Figure 1). Moreover, 84% of those surveyed reported that they were either satisfied or very satisfied with the services provided by the library. In terms of importance, the student center ranked third with 79%, the registrar fourth at 72%, and the bursar fifth at 61%. The three student services which ranked lowest in degree of importance to the respondents were residence life at 44%, the CAP center at 31% and the counseling center at 21%. When looking at how satisfied the students are with the services provided by these facilities, the student center ranked third just barely behind the library at 82%, the registrar was fourth at 71%, and the bursar fifth at 65%. The three services providing the least amount of satisfaction for their services are the CAP center at 43%, residence life at 38% and the counseling center at 28% (Figure 2).

**Figure 1.** Degree of Importance of Selected Campus Units

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<thead>
<tr>
<th></th>
<th>Very Important</th>
<th>Important</th>
<th>Somewhat Important</th>
<th>Not At All Important</th>
<th>Don’t Know/Can’t Judge</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP Center</td>
<td>9%</td>
<td>22%</td>
<td>31%</td>
<td>19%</td>
<td>19%</td>
</tr>
<tr>
<td>Residence Life</td>
<td>16%</td>
<td>28%</td>
<td>26%</td>
<td>18%</td>
<td>12%</td>
</tr>
<tr>
<td>Counseling Ctr</td>
<td>7%</td>
<td>14%</td>
<td>19%</td>
<td>24%</td>
<td>36%</td>
</tr>
<tr>
<td>Recreation Ctr</td>
<td>72%</td>
<td>20%</td>
<td>7%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Student Center</td>
<td>49%</td>
<td>30%</td>
<td>18%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Registrar</td>
<td>28%</td>
<td>44%</td>
<td>23%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Bursar</td>
<td>26%</td>
<td>35%</td>
<td>34%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Library</td>
<td>36%</td>
<td>47%</td>
<td>11%</td>
<td>1%</td>
<td>5%</td>
</tr>
</tbody>
</table>
Figure 2. Degree of Satisfaction of Selected Campus Units

<table>
<thead>
<tr>
<th></th>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Not at all Satisfied</th>
<th>Never Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cap Center</td>
<td>14%</td>
<td>29%</td>
<td>18%</td>
<td>6%</td>
<td>34%</td>
</tr>
<tr>
<td>Residence Life</td>
<td>10%</td>
<td>28%</td>
<td>32%</td>
<td>13%</td>
<td>18%</td>
</tr>
<tr>
<td>Counseling Ctr</td>
<td>11%</td>
<td>17%</td>
<td>8%</td>
<td>3%</td>
<td>62%</td>
</tr>
<tr>
<td>Recreation Ctr</td>
<td>74%</td>
<td>24%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Student Center</td>
<td>34%</td>
<td>48%</td>
<td>14%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Registrar</td>
<td>21%</td>
<td>50%</td>
<td>25%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Bursar</td>
<td>23%</td>
<td>42%</td>
<td>26%</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>Library</td>
<td>40%</td>
<td>44%</td>
<td>13%</td>
<td>3%</td>
<td>1%</td>
</tr>
</tbody>
</table>

The recreation center also seems to be an important contributor in getting students involved in activities and groups outside the classroom. Sixty-one percent of those surveyed reported being either involved or very involved in recreational sports activities. This is a much larger percentage than the second highest area of involvement which involved activity in a professional organization within their major in which about 28% of students responded as being either involved or very involved. The rest of the involvement percentages are as follows: varsity athletics 26%; residence hall activities 20%; concerts, films and cultural activities 18%; honors programs and societies 14%; social fraternities and sororities 10%; student media 7%; and finally student government 6% (Figure 3).
Figure 3. Degree of Involvement in Selected Campus Activities/Organizations

<table>
<thead>
<tr>
<th></th>
<th>Very Involved</th>
<th>Involved</th>
<th>Somewhat Involved</th>
<th>Not at all Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Government</td>
<td>1%</td>
<td>5%</td>
<td>7%</td>
<td>87%</td>
</tr>
<tr>
<td>Honors Programs/Societies</td>
<td>2%</td>
<td>12%</td>
<td>9%</td>
<td>78%</td>
</tr>
<tr>
<td>Professional Org. in Major</td>
<td>13%</td>
<td>15%</td>
<td>17%</td>
<td>55%</td>
</tr>
<tr>
<td>Concerts/Films/Cultural</td>
<td>7%</td>
<td>11%</td>
<td>23%</td>
<td>59%</td>
</tr>
<tr>
<td>Recreation Sports/Facilities</td>
<td>36%</td>
<td>25%</td>
<td>17%</td>
<td>23%</td>
</tr>
<tr>
<td>Varsity Athletics</td>
<td>21%</td>
<td>5%</td>
<td>8%</td>
<td>66%</td>
</tr>
<tr>
<td>Residence Hall Activities</td>
<td>5%</td>
<td>15%</td>
<td>18%</td>
<td>62%</td>
</tr>
<tr>
<td>Social Fraternity/Sorority</td>
<td>8%</td>
<td>2%</td>
<td>3%</td>
<td>87%</td>
</tr>
<tr>
<td>Student Media</td>
<td>4%</td>
<td>3%</td>
<td>4%</td>
<td>89%</td>
</tr>
</tbody>
</table>

Very large percentages of those surveyed indicated that they were either satisfied or very satisfied with their overall experiences at Rowan. More specifically about 93% percent indicated that they were satisfied with their academic experience. Eighty-eight percent reported that they were either satisfied or very satisfied with their non-academic experience, and nearly 97% are reportedly either satisfied or very satisfied with the recreation center (Figure 4).

Figure 4. Overall Satisfaction

<table>
<thead>
<tr>
<th></th>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Not at all Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Experience</td>
<td>32%</td>
<td>62%</td>
<td>7%</td>
<td>0%</td>
</tr>
<tr>
<td>Non-Acad. Experience</td>
<td>34%</td>
<td>54%</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Recreation Center</td>
<td>69%</td>
<td>28%</td>
<td>3%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Slightly less than 60% of those surveyed reported that a campus recreation facility was an important or very important consideration in their decision to attend college as well as an important or very important factor in their decision to continue at Rowan.

Eighty-seven percent of those surveyed indicate that they spend 4 or more hours per week involved in recreational activities while 80% of those surveyed report that they spend 4 or more hours per week at the Rowan recreation center. Over 95% of those surveyed claim that, in the future, their use of the Rowan recreation center would remain consistent as opposed to increasing, decreasing or ceasing completely.

The most popular reason for students' using the Rowan recreation center as determined by earning a rank of either first, second or third on the survey was to increase their cardiovascular endurance as indicated by 68% of those who responded. The second most popular reason was strength training as reported by 56% of the students surveyed, and the third reason was to lose weight as indicated by 51% of the sample population. Rounding out the survey was maintaining a healthy lifestyle at 40%, intramural sports at 21%, stress management at 18%, social aspects at 10%, and group exercise at 9%.

Neither the outdoor adventure club nor the incentive program registered a vote as the main reason for using the recreation center (Figure 5).

**Figure 5.** Ranked as one of the Top 3 Reasons for Using the Recreation Center.

<table>
<thead>
<tr>
<th>Strength Training</th>
<th>Lose Weight</th>
<th>Cardiac-Endurance</th>
<th>Stress Mgmt</th>
<th>Social Aspects</th>
<th>Group Exercise</th>
<th>I. M. Sports</th>
<th>Outdoor Adventure Club</th>
<th>Incentive Program</th>
<th>Maintain Healthy Lifestyle</th>
</tr>
</thead>
<tbody>
<tr>
<td>56%</td>
<td>51%</td>
<td>68%</td>
<td>18%</td>
<td>10%</td>
<td>9%</td>
<td>21%</td>
<td>0%</td>
<td>0%</td>
<td>40%</td>
</tr>
</tbody>
</table>
Fifty-nine percent of those surveyed rated the weight room as the most popular attraction within the Rowan recreation center by ranking it as either their first, second or third favorite feature. The cardiovascular equipment was rated second by 57% of those surveyed, and about 36% of those surveyed claim the staff was the third most popular aspect. The hours of operation received 34% of the votes for the worst feature followed by the pool at 22%, cleanliness at 20%, the aerobic at fitness equipment and intramural sports at 19%. The equipment used for sports received just 8% while the locker rooms finished with only 4% of the votes (Figure 6).

Conversely, about 36% of those surveyed consider the locker rooms as the most unpopular feature of the Rowan recreation center by ranking it as either the first, second or third feature of the recreation center that they would most like to change. The hours of operation was rated as the second feature, which those surveyed would like to change. There was a three-way tie for the third feature where a change was most desired between the aerobic and fitness equipment, equipment for sports, and the cardiovascular equipment. The weight room received 25% of the votes for the worst feature, the pool received 18%, intramural sports accounted for 17%, cleanliness received 10% and finally the staff at 4% (Figure 6).
Figure 6. Ranked as One of the Three Choices for Best and Worst Features of the Recreation Center

<table>
<thead>
<tr>
<th></th>
<th>Best Feature</th>
<th>Worst Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pool</td>
<td>22%</td>
<td>18%</td>
</tr>
<tr>
<td>Weight Room</td>
<td>59%</td>
<td>25%</td>
</tr>
<tr>
<td>Cardio Equipment</td>
<td>57%</td>
<td>27%</td>
</tr>
<tr>
<td>Locker Rooms</td>
<td>4%</td>
<td>36%</td>
</tr>
<tr>
<td>Staff</td>
<td>36%</td>
<td>4%</td>
</tr>
<tr>
<td>Aerobic/Fitness Equipment</td>
<td>19%</td>
<td>27%</td>
</tr>
<tr>
<td>Equipment for Sports</td>
<td>8%</td>
<td>27%</td>
</tr>
<tr>
<td>Hours of Operation</td>
<td>34%</td>
<td>28%</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Intramural Sports</td>
<td>19%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Discussion

There are three important aspects of overall student satisfaction as it relates to this research. The first aspect is a student’s perceived importance with respect to a campus institution or student service. Second is the satisfaction that the student receives from the campus institution or student service (Stodt & Klepper, 1987). Finally, the greater the degree of involvement and integration the more successful and satisfied students are (Tinto, 1993; Pascarella & Terenzini, 1991). Recreation centers are campus facilities that seem to potentially offer opportunities for students in all three of these areas. First and foremost, recreation centers in general offer opportunities for students with similar interests to meet and interact in small groups. If students become involved with a campus facility and it facilitates integration into smaller campus communities, there is the likelihood that this facility will be important to the student. Consequently, if there is a high degree of importance placed on a facility and the service provided by the facility is
of a high quality, it is likely that a facility such as a recreation center would be instrumental to a student's overall student satisfaction.

When looking at the data compiled from these surveys it is clear that the recreation center at Rowan University does in fact offer many opportunities to those who use it. The evidence is clear that those students who use the recreation center are not only satisfied with the service that is provided (98%), but they also rank the recreation center as an important part of their college experience (92%). It also far more significant than any other activity or social organization in terms of getting students involved in the college community.

These results are not only clear but also carry significant weight for the Rowan University campus. As indicated above nearly half of the total students have used the Rowan University recreation center from the beginning of the fall semester through the end of April, 2003. Records indicate that the total number of students enrolled at Rowan for the 2003 academic year was less than 10,000 while approximately 4900 students have used the recreation center. This means that the results of the survey should be generally representative of over 50% of the student body. When it is taken into consideration that Rowan is a regional university which is not exclusively residential and includes a significant number of both part-time and commuter students, many of whom may not be part of the typical traditional college student population this study may be even more significant. The power of this study comes not only from the substantial number of students that it potentially affects, but also because it appears to be a stronger link to more students than any other student service located on the campus.
The data are also relevant when considering the research question of how the recreation center influences recruitment and retention. While the data as reported by the students on the survey do not overwhelmingly show that the recreation center is responsible for dramatically higher rates or recruitment or retention on the Rowan campus, I believe, that after considering what was learned in reviewing the literature, there is a very positive subconscious effect. As shown above, the recreation center plays a very important role both in involvement and overall student satisfaction with the Rowan University campus. The literature reviewed emphasized that these were two areas vital to recruiting and retaining students. While more research would need to be done to draw a direct connection, there is definitely sufficient reason to believe that both recruiting and retaining students at Rowan University is more effective due to the service provided by the recreation center.

The limitations of this study include first of all the size of the sample. Rowan University has nearly 10,000 students enrolled, and about 4900 who have used the recreation center. I was able to use just over 150 of the 200 surveys distributed which amounts to 1.5% of the campus. Also, a different sampling technique may add more validity. While I believe the sample of convenience I used served its purpose as an excellent starting point to explore the impact of the recreation center on student satisfaction, I feel that a follow up to this study using a different method of data collection would only serve to strengthen the results discovered by the study.

Also, though I've previously stated that the results of this study are substantial due to the high proportion of total students who use the recreation center, I feel that there could be a bias due to the venue at which the survey was administered. It is possible that
since the survey was distributed at the recreation center there is potential that there could be a bias toward the recreation center. This could only be remedied by sampling the entire college community or by surveying students at a neutral venue.

This study was fairly extensive in terms of examining both how the recreation center compares externally to other comparable student services as well as internally measuring how different facets of the recreation center compare to each other. Nevertheless, I feel that there is much room for expansion in both of these areas with respect to student satisfaction. As mentioned previously, student satisfaction is a major concern for colleges and universities today and as of the time that this research was completed there are very few published studies on the topic. Further research would not only be beneficial to expand the general base of knowledge regarding this topic but also could help the development and evolution of recreation centers in the long run. When researching the literature for this study, I found a dearth of published research but was told that some institutions, especially those in the Midwest, have done their own, unpublished, in-house research. Much of this research has been done to validate requests for funding to expand recreation center facilities. When looking at the evolution of recreation centers and the numerous recreation center facilities that have expanded around the nation in the last 20 years, I feel that some there is probably a wealth of research whose results were at least convincing enough to coax the administration that putting money into recreation centers was worthwhile.

While a large amount of research is left to be done, not only at Rowan’s campus recreation center but also in recreation center professional community as a whole, the potential benefits are clear. The numerous benefits which come from campus recreation
centers above and beyond the physical benefits are yet to be fully determined and realized. Further research would go a long way in helping college and university administrations realize the potential of their campus recreation facilities in helping their institutions to give the most to their students.
CHAPTER 5

Summary and Conclusions

The goal of this research was to answer questions concerning the effects of the Rowan University recreation center on student satisfaction. The first two questions related to the importance of the center and the students' satisfaction with it. The data has showed that of those surveyed 92% felt that the recreation center was either important or very important to their satisfaction. In addition, 98% reported that they were either satisfied or very satisfied with the service that is provided by the recreation center. The recreation center also ranked higher than all other student services in terms of importance and satisfaction with the service provided.

The third question posed by the research pertained to what extent the recreation center contributed to the recruitment or retention of student's enrolled at Rowan University. Sixty percent of those surveyed claimed that the recreation facility at Rowan was either important or very important both in their decision to attend and to remain at Rowan. Also to be considered with respect to this question is that the recreation center has shown to be instrumental in involving students in the campus community. This has been shown by previous research and previously discussed in this paper to be a great factor in determining whether or not students are retained at their institution.
The final question asked to what degree is the Rowan University recreation center successful in meeting the needs of the students and what else can be done to improve the service it provides. When analyzing the responses related to this question, I found that they are much more subjective than objective. Statistically, the best and worst features were rated by those surveyed. There was no overwhelming aspect that was considered the worst over any other. In comparison to all other student services the service provided by the recreation center was rated by those surveyed as the best. As far as what else can be done to meet the needs of students on the Rowan University campus, I considered many aspects regarding what was important in recruiting and retaining students. After reviewing the data, I feel the one area for which the recreation center has an excellent opportunity to make a difference is to incorporate programming which is based on faculty-student interaction. This is an area for which, in my opinion, there is a need on the Rowan campus, and it is a need that can be filled by the recreation center. The diversity of programming provides for many opportunities for participation. The recreation center could use this course of action to improve its already excellent reputation and further improve its service.
List of References


