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The perceived influence of participation in intramural sports on purpose, interpersonal relationship, and autonomy

Todaro, R. Elaine, Ph.D.

The Ohio State University, 1990
THE PERCEIVED INFLUENCE OF PARTICIPATION IN INTRAMURAL SPORTS ON PURPOSE, INTERPERSONAL RELATIONSHIP, AND AUTONOMY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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The Ohio State University

1990

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School of Health, Physical Education and Recreation
To My Family
Mom and Dad
Granny and Buddy
Eileen and Bryan
ACKNOWLEDGEMENTS

I wish to express sincere appreciation and gratitude to my committee members for their encouragement, guidance, and patience throughout the completion of my degree. I am indebted to Dr. Bruce Maurer and Dr. Wayne Brooks for their support. I am also indebted to Dr. James Sage for his insight and guidance in my data analysis.

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Last, but not least, to Jim Ray, my colleague, my training partner, and my best friend, thanks for keeping my life in balance.
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CHAPTER I

INTRODUCTION

Current educational philosophy emphasizes how learning takes place under very unusual, almost casual circumstances outside of the traditional teacher centered classroom experience. More and more is heard about action learning, leisure learning and the need for engaging in activities without severe structure or organization. The approach in intramural recreation allows a student to come when he wants to come and select the degree of structure the wishes to participate under. The opportunity is an open experience and the tendency to think of this participation in sport as strictly recreational is becoming passe' (Harding, 1971, p. 39).

Student development has been defined by B.B. Crookston as "the application of the philosophy and principles of human development in the education setting" (Crookston, 1972, p.12). Specifically related to higher education,
student development describes the impact the institutional environment and experiences has on students. The sports environment has been described as a mini-society or a participatory model of life (Loy and Kenyon, 1969 and Moore, 1966). If it is agreed that this is an accurate description, it should follow that developmental opportunities in the larger world environment and those in the sport environment are similar.

Theodore Miller (1982) describes the relationship between higher education and society by stating "the uniqueness of higher education in America is reflected in its relationship to the larger society within which it flourishes. American higher education has not developed in a vacuum. Society, is to a certain extent, a result of its educational system as much as the system is a result of society" (p. 5). The American Council on Education Committee on Student Personnel Work's 1937 report The Student Personnel Point of View was one of the initial documents supporting the development of the total student. "Ever since The Student Personnel Point of View student services professionals adopted a development orientation emphasizing and responding to the whole person, attending to individual differences, and working with students at their level of development" (Widick, Knefelkamp, and Parker, 1980,
The Educational Policies Commission followed the work of the Committee on Student Personnel Work in 1938 by publishing a set of aims for American education. The educational objectives focused on "self realization, human relationship, economic efficiency, and civic responsibility" (Educational Policies Commission, 1938, pp. 50, 72, 90, 108).

The concept of the developmental contributions of participating in recreational sports activities began in 1925 with Elmer E. Mitchell's book, *Intramural Athletics*. In the fifth revision of this book Mueller (1979) stated "the purpose of IM-Rec sports programs is very simply and fundamentally to provide human beings with experiences that will assist them in achieving a better state of being. All of these experiences should be directed toward the individual's total development: physical, social, emotional, spiritual, and intellectual" (p. 166). Recreational sports programs have unlimited opportunities to facilitate the development of the campus student population. Programming in recreational sports incorporates attitudes and behaviors such as promoting independence, critical thinking, citizenship, helping individuals to understand self and others, and managing emotions.
The attempt to document this developmental impact of intramural sports participation began in 1976. William Geller utilized Arthur Chickering's psychosocial developmental theory described in *Education and Identity* (1969) to design his checklist of Developmental Intramural Operations. Geller surveyed 300 recreational sports directors to "determine the components, tasks, and processes which they are using or could use, and which can enhance student development" (Geller, 1976, p. 8). During the same year Warnick (1976) completed a research project which investigated the attitudes of University of Montana students toward the contributions of the Intercollegiate Athletic Program and the Intramural-Recreation Program on their general education. Nine years later Dennis Murphy's (1985) research of Indiana University freshmen focused on the development of Chickering's fourth vector, establishing identity. The Erwin Identity Scale was used to "determine, from a psycho-social theory perspective, the relationship between participation in intramural sports programs and the development of identity as represented by Arthur Chickering in *Education and Identity* (1969)" (p. 6).

These projects are the building blocks of a foundation with which the developmental aspects of the intramural sports environment can be viewed as a part of the
educational process. Both Geller and Murphy recommended further investigation into the impact of participation in intramural sports on the development of the total student. Murphy extended his recommendations to include the influence of participation on the other six vectors of Chickering's developmental theory.

**Purpose of the Study**

Geller (1976) discusses the importance of a philosophical foundation for the recreational sports profession by stating that "a profession develops when individuals unite in pursuit of common objectives" (p. 1). The value and worth of all experiences to the total educational development of students has been the philosophical foundation of higher education since the 1926 establishment of the Committee on Personnel Methods by the American Council on Education. Student personnel professionals, as well as recreational sports professionals, believe that any planned campus program should emphasize the institution's expectations. The concepts of student development are rapidly becoming the guiding principle of recreational sports. Because of this, recreational sports professionals must examine conditions within their programs that may foster development.
Winston and Miller (1987) describe the relationship between higher education and student development by stating that the "two fundamental presuppositions of education are that people can change and that educators and educational environments can affect that change. Observations of students from entry into college through graduation confirm that change does take place" (p. 1). The purpose of this study is to further document the educational impact participation of co-curricular activities, specifically participation in intramural sports, has on the development of the total student.

This study will utilize Arthur Chickering's developmental theory described in Education and Identity (1969), to investigate the perceived influence of participation in intramural sports activities on the development of the vectors purpose, interpersonal relationships, and autonomy. In addition, this study will investigate the effects of commuter versus resident status on the development of the above mentioned vectors. Lastly, the results of this study will assist Xavier University Intramural Sports in identifying strategies of program design and delivery which will increase its student development contributions.
Research Questions

1. If the perceived development of purpose is to be related to the amount of participation in intramural sports then resident female upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

2. If the perceived development of interpersonal relationship is to be related to the amount of participation in intramural sports then resident female upperclassmen degree of perceived development will be positively enhanced with frequency of participation.

3. If the perceived development of autonomy is to be related to the amount of participation in intramural sports then resident female upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

4. If the perceived development of purpose is to be related to the amount of participation in intramural sports then resident male upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

5. If the perceived development of interpersonal relationship is to be related to the amount of participation
in intramural sports then resident male upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

6. If the perceived development of autonomy is to be related to the amount of participation in intramural sports then resident male upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

7. If the perceived development of purpose is to be related to the amount of participation in intramural sports then commuter female upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

8. If the perceived development of interpersonal relationship is to be related to the amount of participation in intramural sports then commuter female upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

9. If the perceived development of autonomy is to be related to the amount of participation in intramural sports then commuter female upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.
10. If the perceived development of purpose is to be related to the amount of participation in intramural sports then commuter male upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

11. If the perceived development of interpersonal relationship is to be related to the amount of participation in intramural sports then commuter male upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

12. If the perceived development of autonomy is to be related to the amount of participation in intramural sports then commuter male upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

**Delimitations**

1. Arthur Chickering's developmental theory described in *Education and Identity* (1969) was the theoretical basis for this research study.

2. Based on Chickering's theory, full-time undergraduate students age 17-24 were studied.
3. The foci of this project were three of the seven vectors described by Chickering. These vectors are development of purpose, interpersonal relationships, and autonomy.

4. This study focused on intramural sports and did not include other program areas of recreational sports.

5. The population of the study consisted of a stratified cluster sample enrolled at Xavier University, Cincinnati, Ohio, during Spring 1990 semester/Fall 1990 semester.

6. The resident status, sex, and participation rate of subjects were the independent variables.

Limitations

1. The ability of students to verbally communicate their thoughts and feelings concerning the degree of self identified development of vectors during the Semi-Directed Focused Interview.

2. The strength of the qualitative data analysis is affected by the subjective interpretations of the researcher.
3. This study was limited to the intramural sports program of the Xavier University Recreational Sports Department and therefore conclusions are only applicable to Xavier University.

Definitions

1. Human Development. A continuous and cumulative process of physical, psychological, and social growth which can be divided into an orderly series of life stages. Each stage is characterized by certain developmental tasks that require the human to alter his or her present behavior and master new learning (Miller and Prince, 1976, p. 5).

2. Student Development. The application of human development concepts in postsecondary settings so that everyone involved can master increasingly complex developmental tasks, achieve self direction, and become interdependent (Miller and Prince, 1976, P. 3).

3. Developmental Task. An interrelated set of behaviors and attitudes which the culture specifies should be exhibited at approximately the same chronological time in life by a given age cohort in a designated context (Winston and Miller, 1987, p. 8).

4. Recreational Sports. Programming sport activity for the sake of participation and fun. It is a diverse area
that incorporates four separate program divisions: Informal Sports, Intramural Sports, Extramural Sports, and Club Sport. Each of these four divisions represent varying levels of ability and diverse interests in cooperative/competitive activity in the game form (Mull, Bayless, and Ross, 1983, p. 5).

5. Intramural Sports. Sports events that are planned and organized on a recreational basis for members confined within the wall or jurisdiction of a setting. Intramural sport represents structured sport participation which requires design and external leadership for its provision (Mull, Bayless, and Ross, 1983, p. 136). Most activities are structured into programs for men, women, and mixed participants often with varying levels of ability taken into consideration (p. 6).

6. Vector. Anything having a line of magnitude and direction as it develops. The development of any one vector is never complete; each is influenced by the growth of the other (Chickering, 1969). The direction may be expressed more appropriately by a spiral or by steps than by a straight line. (Chickering, 1969, p. 8.).

7. Purpose. Development of purpose requires formulating plans and priorities that integrate avocational
and recreational interest, vocational plans, and life-style considerations (Winston and Miller, 1987, p. 4).

8. Interpersonal Relationships. Relationships should shift toward greater trust, independence, and individuality and should become less anxious, less defensive, less burdened by inappropriate past reactions, more friendly, more spontaneous, more warm and more respectful. Developing tolerance for a wide range of persons is a significant aspect of this task (Winston and Miller, 1987, p. 4).

9. Autonomy. Mature independence requires both emotional and instrumental independence and the recognition of one's interdependencies. To be emotionally independent is to be free of continual and pressing needs for reassurance or approval. Instrumental independence has two components, the ability to carry on activities and to cope with problems without seeking help, and the ability to be mobile in relation to one's needs. Interdependence is recognizing that loving and being loved are complimentary, or that one cannot receive benefits of social structure without contributing to it (Winston and Miller, 1987, p. 4).

10. Resident. Student who lives on campus in university owned housing (Stewart and Rue, 1983) or within one-half mile of campus.
11. Commuter. Student who lives off campus with parents (guardians) or away from home (Stewart and Rue, 1983) further than one-half mile.

12. Participant (frequent user). Individual taking an active role in the intramural sports program more than an average two or more times per week.

13. Participant (infrequent user). Individual taking an active role in the intramural sports program less than an average two times per week.

14. Participant (non-user). Individual who has not taken an active role in the intramural sports program.

15. Full time student. A student registered for twelve or more credit hours per semester.

16. Upperclassmen. A junior who has completed a minimum fifty-five semester credit hours or a senior who has completed a minimum of ninety semester credit hours.
Human Development

"Living is learning, and growing is learning. To understand human development, one must understand learning. The human individual learns his way through life" (Havighurst, 1953, p. 1). A student entering college is considered a person in developmental transition. In order for the college to assist and promote this development it must be able to answer the question, what is development?

According to Miller, Winston, and Mendenhall (1983), development is "the organization of increasing complexity, and that it is this directional movement toward greater complexity and competence that distinguishes development from growth" (p. 13). They continue by describing growth as the "expansion or enlargement of what already exists" (p. 13). The stages of human development cannot be identified by chronological age or academic status, it is the lifelong process of acquiring, analyzing, and synthesizing information, ideas, and knowledge.
In *The Future of Student Affairs* (1976), Miller and Prince define human development as "a continuous and cumulative process of physical, psychological, and social growth which can be divided into an orderly series of life stages. Each stage is characterized by certain developmental tasks that require the human to alter his or her present behavior and master new learning" (p. 5).

The vast potential for development during early adulthood is one of the major challenges in higher education today. It is generally agreed that attending college will have a significant effect on both the continuous and cumulative development of young adults. Early adulthood is described by Havinghurst (1950), as not only the "most individualistic period of life" but also "the fullest of teachable moments" (p. 64).

Alexander Astin discusses the issues of college impact on students in his book *Four Critical Years* (1977). He contends that research on the impact of college attendance should focus on developmental changes that occur as a result of this attendance. Specifically, he questions whether the change is in fact a result of college attendance or does it result from other influences such as maturation or the environment outside of college. "If students who are more involved in the college experience show greater change than
those who are less involved, the assumption of college impact is strengthened. If, however, changes are unrelated to the students degree of involvement, the maturation hypothesis is strengthened" (Astin, 1977, p. 43). Ability to express one's self more freely, to pursue one's own desire, to lessen previous constrictive and restrictive controls over one's impulses, and the ability to adopt more tolerant and permissive attitudes toward the behavior of others has been identified by Katz (1965, p. 5-6), as results of normal maturation. He continues by stating "such maturation may be heavily influenced by the social setting and social expectations" (p. 6).

The college setting should be designed under the influence of an educational mission that includes the cognitive, affective, and psychomotor domains. The phrase human development is often included in college brochures as a descriptor of the college experience which will "liberate the mind, build the capacity to make value judgements, and inculcate the attitudes and values of democracy" (Sanford, 1964, p. 12). The creation of a developmental community is the key to human development. "The human individual functions as a unit, and his diverse features develop in interaction with one another. Intelligence, feeling, emotion, and action are inseparable aspects, not separate
parts, of behavior" (Sanford, 1964, p. 281). Social, academic, and intellectual incentives will all be present in an institution that establishes a developmental community mission.

Social incentives refer to the "prospects of social acceptance, of being admitted to membership in desired groups, and of being respected, liked, admired, or loved by relevant persons" (Bay, 1964, p. 259). "Conscientious fulfillment of course requirements and achievement of good grades" (Bay, 1964, p. 259), are academic incentives. Bay continues by describing intellectual incentives as the "intrinsic satisfaction perceived in striving to broaden understanding and sharpen power of reflections" (p. 259). Research in the area of college impact on human development indicates the perceived importance of these three categories or incentives by students.

In 1968, Katz questioned college seniors, "how have you changed?" Respondents felt their most significant changes came in the areas of self confidence, poise, independence, improved social skills, and leadership ability. Secondly, the seniors believed that they had become more stable, and had achieved better self understanding, better defined philosophy, and better emotional control. They also perceived growth in the ability to face limitations and the
development of a greater tolerance of others convictions (p. 9). The students then prioritized the factors that contributed to these changes. Almost one half indicated personal relationships as the most important variable factor. Inward disposition, coursework and professors, and finally student government, political activities, and job experiences were also mentioned (p. 13). The study by Katz indicates that the total learning process should be more than career oriented.

The longitudinal analysis done by the Cooperative Institutional Research Program shows clearly that "students undergo a variety of changes in attitudes, values, and self concept after they enter college. These changes include a more positive self image reflected in a greater sense of interpersonal and intellectual competence" (Astin, 1977, p. 76). Feldman and Newcomb (1969), support this claim. Their assessment of the impact of college on human development was done by reviewing several studies dealing with the educational goals of the college experience. "Nearly without exception in each study, the percentage of students rating the more academic goal of basic general education and appreciation of ideas as important has increased by the senior year. Usually in third place (or close by) as a general or ideal educational goal for
freshmen is the development of one's ability to get along with different kinds of people or the enhancement of other interpersonal skills" (p. 16). In other words, the general trend is away from the narrow goal of preparation for a vocation and toward the broad goal of preparation for life.

**Student Development**

Student development is "the application of human development concepts in post secondary settings so that everyone involved can master increasingly complex development tasks, achieve self direction, and become interdependent" (Miller and Prince, 1976, p. 3). A comprehensive review of higher education goals was completed by Brown in 1972. He found that throughout history "the expressed or clearly implicit goals of colleges and universities have been to have an impact on students in ways more extensive than passing on facts, specific skills, or intellectual capacities" (p. 28).

E.G. Williamson, chairman of the American Council on Education Committee on Student Personnel Work, published *The Student Personnel Point of View*. This 1937 document was the first formal philosophy statement which supported total student development as the basic purpose of higher education. Prior to this time, the central purpose of
higher education was preservation, transmittal, and enrichment of culture. According to *The Student Personnel Point of View* the major objective of higher education was the intellectual, as well as, the social development of the whole person. One year later the Educational Policies Commission of the National Education Association published a new set of aims for American education which focused on self realization, human relationship, economic efficiency, and civic responsibility (Educational Policies Commission, 1938, pp. 50, 72, 90, 108).

A 1949 revision of *The Student Personnel Point of View*, also published by the Committee on Student Personnel Work, endorsed and supported the total student development philosophy. The following objectives of education were established:

1. Increased efforts to treat people as individuals;
2. Optimum development needs recognition of individual differences;
3. The concept of development demands flexibility; and
4. Full development involves acquisition of a pattern of knowledge, skills, and attitudes consistent with abilities, aptitudes, and interests. (Williamson, 1949, p. 3).

It is important to note that with this increased awareness of total student development, more responsibility was placed on the individual student to be an active participant in his or her own development. The major goal of education was "balanced maturity" (Williamson, 1949, p. 1).

Achievement of orientation, a sense of belonging to the college environment, progressive understanding of emotions and physical capacities, development of lively and significant interests, the development of individuality and responsibility, and discovery of the ethical and spiritual meaning of life (pp. 6-10), are some conditions listed by The Student Personnel Point of View which may help the student choreograph his own development. Williamson (1949) states that the achievement of these objectives "requires the cooperative and integrated functioning of classroom and co-curricular activities with the growth and development of the student as the focal point of all that is implied in the education process" (p. 11). The main theme educators
carried into the 1950's was that participation by students is a major contributor to development acquired from educational programs.

Peer group influence, development of personal independence, and the development of a philosophy of life are three categories of developmental tasks in which student participation in educational development can be realized (Havighurst, 1953).

Through the influence of peers, students can develop more mature relationships and a masculine or feminine social role. Students will become adults, able to work toward a common purpose. This interaction will allow students to learn the assumption of leadership roles without domination.

Havighurst (1953) includes six subtasks in the development of personal independence. The first is the ability to accept one's body and use it effectively. Emotional independence is the ability to free oneself from dependence on parents and develop independent relationships with other adults. Economic independence and selection of an occupation are the next two subtasks. These included the ability to make a living in an area of interest and to value society as well as recognition of economically useful activities for the community. Acquiring a positive attitude about family life and responsibilities shows development of
personal independence and is also influenced by the peer group. The last subtask in this category is intellectual competence. Students can study social problems and develop reasoning skills by participating in co-curricular activities.

Development of a philosophy of life can be enhanced by achieving socially responsible behavior patterns and acquiring a set of values and an ethical system to guide behavior.

Two general conclusions concerning the role of the institution in the influence of student development can be drawn from Havighurst's categories of developmental tasks. First, the central focus of the educational process must be on the individual student. Second, a campus with a strong sense of purpose is apt to design higher quality educational processes. Although this participatory concept of student responsibility for education is a good one, the university must not lose sight of faculty guidance as a primary function in contributing to the educational impact. "By taking attitudes which, in educational terms, were intended to make the students independent of adult authority, we seem in fact to have made them more dependent. Students need all the freedom we can give them. But they need equally to
learn by example whom and what they can respect" (Taylor, 1964, p. 221). Proper avenues of participation, appropriate degrees of participation, and effectiveness of participation are areas that must be addressed by an institution that wants to contribute to the total development of the student.

The *College Influence on Student Character* (Eddy, 1959), a study by the American Council on Education, explored the effect of faculty guidance of student participation on character development. "Colleges should assess realistically what it wants to have happen and then expect members of the community to realistically work toward that goal" (p. 10). Colleges that were found to be the most challenging to student development included the following four steps in their program design: involvement, application to academic and personal responsibilities, critical thinking, and commitment to greater participation (pp. 17-22).

Higher education in the 1960's admired the intellectual ability of its students but was beginning to prefer better integrated and developed student body. The interrelationship of the intellect with total development was becoming more apparent. Among the prominent works of the 60's are *Student Personnel Services in Colleges and Universities* (1961), by E.G. Williamson, which advocated
total development of the student; Joint Statement of Rights and Freedoms of Students (1976) which stated that institutions exist for the development of the student; and the Hazen Foundation Committee on the Student in Higher Education (1968) which reported a need for more attention to the intellectual and personality development of the student.

Nevitt Sanford (1964) discusses the aims of a higher education environment which strives for the fullest possible development of the individual as an educational system that "does not ask what the individual should know or do, but what qualities he should achieve" (p. 14). He continues by stating, "where the educational aim is the development of the individual, it is extremely difficult to separate means from ends, or to know what subgoals are necessary to attain more ultimate goals" (p. 17).

As the student development philosophy became the foundation of higher education in the 1960's there arose a pressing need for a theoretical base as well as the need for adequate faculty guidance resurfaced. "Because young people are at a developmental stage concerned with the problems of identity and self esteem, they are not yet ready to take full charge of their own development" (Sanford, 1968, p. 862). Wrenn (1968) identifies the academic community's recognition of student affairs as an essential part of the
overall educational program. The questions of "what kinds of students change, in what ways, following what kinds of experiences, mediated by what kind of institutional arrangements?", (Feldman and Newcomb, 1969, p. 5), were becoming common among administrators in higher education.

Arthur Chickering's psychosocial theory of human development described in *Education and Identity* (1969) became one of the more popular perspectives used by educators. This project utilized Chickering's development theory; therefore, a more thorough review will be given later in this chapter.

The nation progressed through the agrarian and industrial era and is presently in a technological phase. The educational system has steadily evolved from an elitist to an egalitarian one in which the aim has become the development of an educated and enlightened student body. "Ever since *The Student Personnel Point of View* student services professional adopted a developmental orientation emphasizing and responding to the whole person, attending to individual differences, and working with students at their level of development" (Widick, Knefelkamp, and Parker, 1983, p. 75). The discussions and writing of the 60's showed the virtues of the new developmental approach. Widespread support for this concept continued into the 70's and 80's.
"The application of human development theory to student affairs practice initiated the student development movement in higher education" (Miller, 1982, p. 8).

In the 70's educational accountability came to the forefront. The ability to document the intentionality of a program's educational contribution was key. Arthur Combs (1972) states "no one evaluates teachers on whether their students are becoming good citizens, learning to care for each other, work together, etc. Everyone knows that people tend to do those things they are being evaluated. Indeed, it is an understanding of this fact that has brought about the pressures for accountability" (p. 25).

Student personnel professionals were continually redefining their roles and attempting to prove their contributions to the effectiveness of the institution. "In most institutional settings, budget restrictions, new evaluative procedures, and cost benefit analysis prohibit the continued additions of staff members with narrow perceptions of their roles and limited estimates of their value. However, by perceiving the entire organization as a client and by vigorously reallocating expenditure of energy to contribute maximally to institutional goal achievement, the worth of student personnel functions will be visible, their contributions and achievements recognized, and their
role in organizational effectiveness enhanced" (Shaffer, 1973, p. 391). Astin (1977) discusses the effects of economic pressure on the student development movement.

"Economic pressures have forced legislators to look for programs where public spending can be cut; and federal and state investments in higher education underscore the need for better information on how colleges affect students. Does it have significant impact on their values, personality, behavior, and lifestyles?" Do they become more competent and knowledgeable?" (p. 2). As a result of the need for educational accountability, administrators responsible for organizing and guiding student development programs began to formalize their premises and practices in an attempt to show the credibility and validity of their work.

 Significant theoretical works concerning the application of the student development concept began to appear in student personnel literature. Burns B. Crookston's 1972 paper "An Organization Model For Student Development" was directed toward the problem of building an organization to fulfill the goals of student development. As a result of his model, student personnel work began to be seen as a central function of the educational impact of
college attendance rather than just complimentary or supplemental to the instructional programs.

The American College Personnel Association responded to the 1968 Committee on Student in Higher Education report *The Student in Higher Education* with the Tomorrow's Higher Education Project (T.H.E.). The mission of college student personnel work was conceptualized and redefined through the two phase T.H.E. project.

Phase I, Brown's 1972 monograph, *Student Development in Tomorrow's Higher Education: A Return to the Academy* was "implemented for the purposes of defining the nature of learning and identifying the fundamental goals and premises of higher education" (1975, p. 336). The student personnel organization needs to be more than a subsystem of higher education that serves as a liason between the formal instructional setting and the student. *The Future of Student Affairs* (1976) by Miller and Prince was the first prominent publication which stated that the entire higher education community should be concerned with student development.

Gamskey and Oleshansky's 1980 study was designed to gain better understanding of the student personnel policy maker's view of the developmental philosophy and to determine the degree to which programs are implemented on
campuses consistent with this philosophy. They surveyed 100 Vice Presidents of Student Affairs (or equivalent) at higher education institutions ranging from 10,000 to 20,000 students. The study showed that the Vice Presidents are committed to the student development approach, but their perception of the university communities' commitment was less than average. Their findings also indicated that the Vice Presidents would like to see a significantly greater number of developmental functions implemented in the future.

Kitchener (1982) takes a conservative approach concerning potential for development while attending college. She feels there should be promotion of development, but that there should not be an overly optimistic attitude about the amount of development that can occur in 4-5 years of college.

The student personnel literature has demonstrated that when student development principles are formalized and implemented significant development can occur. Also, it has been stated many times that participation in co-curricular programs provide developmental opportunities. It is important that all divisions within higher education realize their role in enhancing total student development. As stated in the introduction of the project, the sports environment is considered a microcosm of society; therefore,
it is important to understand the role of sport participation as a co-curricular developmental opportunity of higher education.

Role of Sport

"Society is to a certain extent, a result of its educational system as much as the system is a result of society" (Miller, 1982, p. 5). In general it is agreed that the role of sport has significant impact on American society. "For many years sport has been said to be the very essence of what is good about America" (Murphy, 1985, p. 24). Educational sport is considered the use of sport as an independent variable with which organizations can enhance development. Sheehan and Alsop (1972) define educational sport as "the structure of sport adjusted so that identifiable behavioral learning are outgrowths of the experience" (p. 42). They continue by stating, "if sport is to become an educational medium the social attitudes which are learned should transfer to situations other than the contest of the medium" (p. 43). In other words, responses to situations should be transferable and therefore similar in subsequent situations. Thomas describes five possible meanings found in Sport in a Philosophic Context (1983). These meaning are the pursuit of excellence,
dominance/superiority, defining personal limits, taking chances, and expression (p. 110) can all become educational mediums influenced by sport. For this education to take place, administrators of sports programs must be sure the "learning medium is structured properly" (Sheehan and Alsop, 1972, p. 43).

Cozens and Stumpf in *Sports in American Life* (1953) describe the relationship between sport and society by stating "sports and games provide a touchstone for understanding how people live, work, and think and may also serve as a barometer of a nation's progress in civilization" (p. 1). Tandy and Laffin (1973) support the intertwining of sport and society by stating "sport provides an intriguing clue to the complex American culture, and parallels the establishment of many behavior patterns within society. Three dominant forces have emerged in our culture. Individuals search for identification, seek emotional stimulation, and strive for achievement and status" (p. 19).

In American society and sport, the emphasis is on achievement, success, and excellence. "Winning is good, positive, and something everyone strives toward; while losing is bad, negative, and something to avoid" (Schechter, 1977, p. 35). Schechter's view is common, however, winning is often only achieved by a few and anxiety can result from
the frustration of perceived failure. An assessment of the value of competition was completed by Combs (1957). He felt one myth of competition is that competition is a powerful motivator. "Only those compete who feel they have a chance of winning, the rest ignore the competition. Competition is of limited value as a means of motivation since it motivates a few" (p. 265). He continues by stating, "people do not learn to feel able by repeated experience of failure. A democratic society is dependent on our ability to produce people who see themselves as adequate or able" (p. 266). Combs (1957) feel we live in a "cooperative interdependent society" (p. 264) and that "competition is not the rule of life but the exception" (p. 265).

For success in society today there must be elements of cooperation as well as competition among peers, authority, and subordinates. "Success in sports, as in life, results from the effort or process of play rather than the outcome. The real contest in sport is with oneself. The real satisfaction should come from doing one's best. Satisfaction in sport should derive from skillful play and that should produce genuine pleasure and a sense of self confidence which results in self esteem" (Rokosz, 1977,
Participation due to intrinsic motivation will result in more permanent learning than participation due to extrinsic motivation. Thomas (1983) discusses the relationship of sports participation and its effects on the person's development by stating "sometimes sport can be used as a mirror to see self, strengths, and frailties, in an objective way" (p. 130). Sanford, Borgstrom, and Lozoff (1973) identify several by-products of sports participation that relate to student development in "The Role of Athletics in Student Development". Their list includes the achievement of competence and self esteem, the development of social abilities including leadership, the formation of identity and the management of personal needs such as aggressions (p. 57). It is this impact of sports participation on the total development of students that needs further attention.

Educational Impact of the Co-curricular Environment

All of a student's time is not spent in the classroom or with related classroom activities. There are many other potential influences on the student's development, one of which is co-curricular leisure activities. "Modern education must produce far more than persons with cognitive skills" (Combs, 1972, p. 23). Mobley (1980) supports the
need for leisure participation as a contributor to total development. He states "development in the leisure arena is important and should stand alongside classroom...experiential base" (p. 34). One of the most important points in "Higher Education as a Field of Study" (Sanford, 1964), is the influence of various features of the campus environment will have on student development. Planned co-curricular activities is an area mentioned by Sanford as a contributor.

Miller (1974) believes that the answers to the search for self identity can only occur through "the blending of the academic with the extra-and co-curricular experience" (p. 25). The major premise of Miller's article is that the value system and attitude about the world formed by students is greatly affected by their leisure style development. The campus is considered a social microcosm where students can develop the knowledge, skills, attitudes, and values necessary for productive participation in American life. "The most important subsociety is that to which only students belong. Student society may promote development through offering the individual opportunities to become familiar with a variety of social roles and by confronting him with situations to which he must learn to adapt himself" (Sanford, 1964, p. 22).
According to Eddy (1959), the major contribution of college is providing "the opportunity to acquire the ability to get along with people whose backgrounds and interests are dissimilar" (p. 149). He found that in all colleges "a conservative social life was an important part of the environmental influence" (p. 150). The study "Student and Faculty Perceptions of Educational Values" by Jervis and Congdin (1958) found a discrepancy between the faculty and students views concerning the sources of educational impact. The faculty were more concerned with the "intellectual and related activities, while students ranked vocational preparation, self fulfillment, and self understanding higher than intellectual values and activities" (p. 431). The Carnegie Commission (1973) responded to indications by undergraduates that their college experience related directly to their total developmental growth in the following manner, "the campus must seek to provide effective opportunities in the classroom and a constructive campus environment. Providing opportunities for an effective education, and determining the attributes of and providing for a constructive environment are appropriate and also sufficient tasks" (p. 17).

American higher education charges professors with three very broad functions. These functions are research,
teaching, and service. The area of service could include the goals of character and value development. Knapp (1964) discusses the role of the college professor. "In the long run the character developing functions of the American college professor has declined" (p. 133). Due to specialization in teaching or research his view of the future is that "the professor will probably be called on less and less to concern himself with the individual character development of his students" (p. 136). The classroom certainly has a limited realm of experiences which are relative to the students' later life. As opposed to learning as an assimilation of information Keeton (1976) describes learning as "the transformation of experience into even more maturing insights and the development of the self into an even more responsive and responsible participant in a mutually fulfilling society" (p. 11). Keeton (1976) distinguishes between the classroom and co-curricular learning experiences by stating "much of learning that takes place in class proceeds through instruction, in which information or knowledge is transmitted from instructor to learner, while much of the learning that takes place outside class proceeds through acting (or in some cases, seeing another person act), and then experiencing or learning the consequences of action" (p. 15).
Chickering (1976), defines experiential learning as "the learning that occurs when changes in judgements, feelings, knowledge, or skills result for a particular person from living through an event or events" (p. 63). Experiential Learning (Keeton, 1976) develops a solid case for the inclusion of experiential learning as a part of the contribution to American higher education to the total development of the student. "Much learning of great value occurs outside of formal schooling" (p. xv). Miller (1974) describes the positive relationship experiential learning can have on the future of college graduates by stating "activities, attitudes, and values of college and university educated Americans at major points in time after their graduation will mirror the nature and impact of the leisure experiences they shared together during their college years, even though such sharing may have been, at time, vicarious and indirect" (p. 25). "The institution which would lead an individual toward greater development, must, then, present him with strong challenges, appraise accurately his ability to cope with challenges, and offer him support when they become overwhelming" (Sanford, 1966, p. 46).

Administrators of programs in higher education who profess the total student development concept must legitimize their programs and experiences. Until this is
done, student development will only be considered "incidental, if not accidental" (Brown, 1983, p. 194).

**Intramural Sports**

Colleges have accepted the fact that participation in out-of-class activities does contribute a great deal to the total education of students. One of the major co-curricular divisions within the university environment is recreational sports. There are several programming areas within recreational sports; one of which is intramural sports. By definition, intramural sports are "sports events that are planned and organized on a recreational basis for members confined within the wall or jurisdiction of a setting. Intramural sports represents structured sports participation which requires design and external leadership for its provision" (Mull, Bayless, and Ross, 1983, p. 136). It is the student's perceived influence of participation in the intramural sports program on development that is the specific focus of this study.

Programs in intramural sports began to appear on campuses in the mid to late 1800's. These programs achieved formal status in 1913 when Ohio State and Michigan became the first schools to receive administrative recognition by establishing the first Intramural Athletic Departments.
Twelve years passed before the first book on intramural sports was published. Elmer Mitchell's (1925) book *Intramural Athletics* discussed the benefits of intramural sports participation. The philosophical basis of implementing the student development concept had begun. This foundation provided a purposeful and consistent approach of program development for future administrators. Mueller and Reznick completed the fifth revision of Mitchell's original work in 1979. They continued to carry forth the same philosophical purpose of intramural sports established in 1925. "The purpose of IM-Rec sports programs is very simply and fundamentally to provide human beings with experiences that will assist them in achieving a better state of being. All of these experiences should be directed toward the individual's total development: physical, social, emotional, spiritual, and intellectual" (Mueller and Reznick, 1979, p. 166).

Twenty five years after the publication of *Intramural Athletics* the National Intramural Association, (now the National Intramural-Recreational Sports Association), was formed. The establishment of this organization in 1950 substantiated the significance of participation in intramural sports. The Washington Conference on Intramural Sports for Men and Women was sponsored by the American
Association for Health, Physical Education, and Recreation in 1955. Several developmental objectives appeared in the report from this conference. The theme of educational impact became more and more prevalent.

When discussing the significance of intramural-recreational sports as part of the total educational process Kleindienst and Weston (1964) state that it "must be considered as a medium through which the goals of education can be achieved" (p. 52). Another advocate of the developmental objectives of participation was L.E. Means (1973) publication *Intramurals: Their Organization and Administration*. "It is important to note that the ultimate outcomes of education and recreation are human understanding, behavioral control, and psychological well-being" (Rokosz, 1977, p. 45). Mobley (1980) supports the interdisciplinary effects of participation in recreation sponsored programs by stating "recreational sports must be viewed as a laboratory for almost everything that academic programs in health, physical education, and recreation are trying to accomplish. It can also provide a laboratory for student development for many other units on campus" (p. 33). Mobley continues by identifying the significance of the recreation specialists as "not the providers of activities to occupy time and to burn up energy, but they are a part of
a developmental process" (p. 34). The idea of intramural sports participation as a contributor to the education of students is also supported by Pope (19 ). He states "recreational sports activities are also educational tools with which the skilled administrator can effectively contribute to the accomplishment of the broad objectives of education. Skillful intramural-recreational sports administrators will plan educationally valuable direct, incidental, and indirect learning experiences" (p. 13).

Lass (1981) points out the potential campus recreation and leisure experiences can have on the development of social and individual values. She states "education is needed to intellectually express these values in the learning process. Leisure provides the opportunity to shape values and provides the course for expressing values. Decisions, both social and individual, are based on values, and values are never more on display than in choices made during leisure" (p. 19). The participatory environment of the intramural sports setting can contribute to the overall educational program in many ways.

Experience in competition, group interaction, the opportunity to experience victory and defeat with proper discipline and conduct, self discipline and responsibility, responsibility for others, development of skills and
interests for leisure time use, emotional stabilization, development of self image, and elimination of social and racial barriers are some contributions outlined by Keen (1977) in his article "Contributions of Intramurals to the Education Program." Mull (1975) identified the possible psychological, sociological and educational impacts on student development. Concerning the psychological impact, he states "participating individuals attain personal satisfaction and meet emotional needs, such as the need for accomplishments, for self expression, for recognition, for new experiences, and for belonging" (p. 105). With reference to the sociological implications Mull concludes "within the social structure of sports are elements of governance, cooperation, and competition which parallels society. In sport, desirable social attitudes and behaviors can be fostered. Effective and efficient mass sport programming can promote the development of good sportsmanship, group loyalty, honesty, self-assurance, and self control" (p. 105). He continues by discussing the educational impact of participating. "Quality administered programs can modify or reinforce affective learning which includes emotional control, teamwork, judgement, authority, rule acceptance, sportsmanship, etc." (p. 106).
This section has indicated several references to discussions and writings within the recreational sports profession concerning educational impact of participating in recreational sports department sponsored programs. It is obvious that the philosophy of the programs are consistent with the broader purposes of higher education. "The intramural programs should have, above all, a fixed, articulate philosophy concerning the nature, intent, and reason behind the intramural program" (Pope, 1978, p. 44). The professionals in the field of recreational sports profess student development; however, only three studies have been previously identified as contributing to the support of educational impact of participation in recreation sponsored programs. Two of the studies utilized Arthur Chickering's psychosocial development theory described in Education and Identity (1969) as the basis of their research. It is the goal of this project to extend the research on intramural sports participation perceived influence on the development of Chickering's vectors.

**Arthur Chickering—Psychosocial Development Theory**

The concept of student development has been identified as the primary function of higher education. Recreational sports administrators must make the transition from intent
and connect theory to practice in order to prove educational accountability. "One must eventually move from statements of ideals, however, to the essentials of practice" (Appleton, Briggs, and Rhatigan, 1978, p. 22). A well established and accepted student development theory would seem to be the most appropriate foundation for organizing such an effort. Hurst (1980) supports the need for a conceptual foundation stating that a student development theory "serves as the core construct around which goals are identified, programs developed, agencies organized, interventions evaluated" (p. 151). The work of Arthur Chickering has been chosen for two reasons. First, his theory has been used in two previous intramural sports studies by Geller (1976) and Murphy (1985). Second, as stated by Murphy (1985), "psychosocial theories of human development are particularly concerned with how individual development is influenced by societal pressures and social roles" (p. 29).

Widick, Parker, and Knefelkamp (1978) describe Chickering's work as "careful and systematic thought and stands as a major contribution to our understanding of student development" (p. 20). They continue by identifying three descriptive objectives of Chickering's philosophical position which underlies his conceptual model that would
span a continuum from student as a developing being to educational practice, to increase the working knowledge necessary for good decision making rather than redefining the theory and research base of student development, and to construct a framework of the developmental changes occurring in young adulthood in a more detailed way" (p. 20).

Chickering's model drew on the theoretical constructs of other psychosocialists such as Erikson, White, and Sanford. His model was the result of a longitudinal study which started as an evaluation of college curriculum organization. He originally wanted to determine if curriculum organization influenced student development. The intended audience of Education and Identity was not the student personnel professional (Thomas and Chickering, 1984). However, his model has been commonly used because it "outlines sources of impact in the college environment. His descriptions of students and college environments are theoretical yet recognizable and realistic, his thinking connects in very direct ways with the experiences of college practitioners" (Widick, Parker, Knefelkamp, 1978, p. 19).

Originally, Chickering felt that student development would best be enhanced on smaller campuses. First, there would be opportunities for close and sustained relationships among students and between students and faculty. Second, he
felt students would be more apt to be actively engaged in planning and conducting out their own education. Finally, the smaller campuses would permit more experiential learning (Thomas and Chickering, 1984, p. 393). Widick, Knefelkamp, and Parker (1983) identify six major sources of influence on student development that could apply to all institutions. These are "clarity and consistency of the college's objectives, size of institution, curriculum, teaching, and evaluation, residence halls, faculty and administration, and student culture" (p. 89).

Chickering identifies seven vectors of development in his model. These vectors not only allow a more thorough way of looking at students, but also increases ability to conceptualize the design of programs. The term vector has been used "because each seems to have direction and magnitude even though direction may be expressed more appropriately by a spiral or by steps than by a straight line" (Chickering, 1969, p. 8). Achieving competence, managing emotions, autonomy, interpersonal relationships, establishing identity, developing purpose, and developing integrity are the seven vectors. Chickering (1969) discusses the thesis of his vector description by stating that not all "students change along all seven vectors, not that the environmental conditions operate with equal force
for all students at all institutions, but that such changes do occur for some students and they can more frequently occur for others. Environmental conditions at some institutions do foster or inhibit such changes, and systematic modification can increase the frequency of valued development" (p. 5). The focus of this project is on the vectors of autonomy, interpersonal relationships, and purpose. Therefore, a more detailed review of these will follow.

**Autonomy**

Chickering (1969) provides the following description of developing autonomy.

"Autonomy, the independece of maturity. It is secure and stable; coping behaviors are well coordinated to personal and social ends. This kind of maturity requires both emotional and instrumental independence, and recognition of one's interdependence" (p. 12).

The three interrelated components are described as follows. "To be emotionally independent is to be free of continual and pressing needs for reassurance, affection, and approval. Instrumental independence has two major components; the ability to carry on activities and to cope with problems without seeking help, and the ability to be
mobile in relation to one's needs or desires. Recognition and acceptance of interdependence is the capstone of autonomy. As interdependence is recognized and accepted, boundaries of personal choice become more clear" (p. 12-13).

**Recreational Sports Implications**

The design of an intramural sports program that promotes student development can influence the development of autonomy in the following ways.

1. Participation on sports teams can help in disengagement from parents;

2. Participation in activities with peers allows for social interaction with a variety of people;

3. Positions of responsibility allow experiences in decision making, problem solving, etc.;

4. Successful participation experiences promote the desire to seek new and challenging experiences;

5. Participation in group activities promote the awareness of using others' strengths to make progress;

6. Participation contributes to the ability to learn to make use of available resources; and
7. Cooperation among team members and opponents is necessary to have a successful play experience.

Research by Groves (1966), Fletcher (1971), and Rothfarb (1971), all show that participation in activity programs influence the development of autonomy.

Interpersonal Relationships

Chickering (1969) provides the following description: Freeing interpersonal relationships "involve developing tolerance for a wider range of persons" (p. 15). Tolerance develops through an "increased capacity to respond to persons in their own right rather than as stereotypes" (p. 15). Relationships begin to "shift toward greater trust, independence, and individuality" (p. 15).

Recreational Sports Implications

The design of an intramural sports program that promotes student development can influence interpersonal relationships in the following ways:

1. Co-intramural sports programs allow for interaction among males and females;
2. Maximum participation allows for more students to be involved which may increase respect for others of different backgrounds;

3. Rule modifications promote a lesser need to dominate and creates an arena to promote equality;

4. Competitive environment helps increase tolerance;

5. Classification levels of sport promotes a successful environment; and

6. Variety of program offerings promotes contact with a variety of people.

Research by Bouet (1966), Husman (1969), and Martens (1971), indicate development of interpersonal relationships through participation in activity programs.

Clarifying Purpose

"Who am I?" but "Who am I going to be?"; not just "Where am I?" but "Where am I going?" (Chickering, 1969, p. 16), are the key questions to be answered when clarifying purpose. There are three components of purpose: avocational and recreational interests, vocational plans, and aspirations, and general life-style considerations. Chickering (1969) continues to describe the development of purpose as requiring the formulation of plans and priorities
that integrate these three components. "With such integration, life flows with direction and meaning" (p. 17).

Recreational Sports Implications

The design of an intramural sports program that promotes student development can influence the development of clarifying purpose in the following ways:

1. Commitment to participation in a program increases the ability to set goals and persist to the conclusion of an event;
2. Leisure time sports can aid in life-style development; and
3. Participation can assist in the integration of the three components.

Research by Allport (1961), Layman (1972), and McKinney (1972), indicate the positive impact participation in activity programs can have on the development of purpose.

Widick, Parker, and Knefelkamp (1978) identify five major experiences or tasks suggested by Chickering which are central to developmental change. Administrators and program designers should "engage students in making choices, require interaction, with diverse individuals and ideas, involve students in solving complex intellectual and social problems without demand for conformity to an authority's view, and
involve students in receiving feedback and making objective self assessments" (p. 27). The recreational sports implications discussed in this section identify many experiences and tasks which are applicable to these five areas. Another institutional impact identified by Chickering (1969) which requires consideration is the "identification of significant subgroups with each college population, and study of change for these subgroups, as it relates to their characteristics and to those of the institution" (p. 308). The major subpopulation for this study is commuter versus resident students.

**Commuter Versus Resident**

A result of the college experience is that all students undergo change. The purpose of student personnel professionals is to positively influence this change. In order to be effective in program design and delivery, knowledge of the characteristics of the students to be served is essential. This task alone is a cumbersome one, since university environment is considered "a plurality of heterogeneous subgroups" (Feldman and Newcomb, 1969, p. 232).

"Changing national patterns of college attendance over the past two decades indicated that an overwhelming majority
of college students commute to their classes rather than live on campus" (Andreas, 1983, p. 9). Stewart and Rue (1983) estimate the overall undergraduate population is approximately 80% commuters. According to this statistic, they state that "there would be no category of higher education institution that would not be described as having a majority of commuter students as undergraduates" (p. 7). Chickering (1974) identifies many factors which may have been influential in the steady increase in the proportion of commuter students. "Institutions have ceased or sharply curtailed new construction and are looking toward new nonresidential approaches to higher education" due to "inflation and rising costs, decreasing federal and foundation support, and of decelerating tax support" (p. 2).

Most theories of college impact on student development have either been tested on residential populations or have not made a distinction between the subgroups. "Unlike describing homogeneous resident student populations, it is not a good practice to transfer generalizations about commuter students from one institution to another. Therefore, this complexity makes it essential for institutions to perform their own self study and research on commuter students and how their needs are served" (Stewart and Rue, 1983, p. 7). The goal of total student development
is often considered the mission of a higher education institution. The best way to assess the accomplishment of that mission may be to research institutional effectiveness on the commuter population. "An institutional focus on the diversity of the commuter student body can set the stage for assessing how well the educational goal of developing better-informed, self-directed, and educated citizens who contribute to society is met within the diverse subgroups of that student body. Knowledge of commuter student diversity, success, and achievement can assist administrators specifying the student development mission of the college or university" (Andreas, 1983, p. 14). Student participation in campus activities will certainly affect their intellectual and personal development. Because of this, it is important to consider the differences between resident and commuter students.

The Resident Student

Interaction with faculty, involvement in leadership positions, achievement in co-curricular areas, involvement in student government and the greek system are all identified by Astin (1977) as more likely to occur for a resident student than a commuter. "Residents express much more satisfaction than commuters with their undergraduate
experience, particularly in the areas of student friendships, faculty-student relationships, institutional reputation, and social life" (p. 221). According to Chickering (1974) the first two years are most significantly influenced by the immersion in the college environment. Residential living accomplishes this. "Research indicates that most changes in attitudes, values, future plans and aspirations, and intellectual interests at college occur during the first and second years, as resident students come to grips with fellow student and college subcultures" (p. 10). The advantages of residential students in academic, co-curricular, and interpersonal experiences are well documented by Chickering.

The Commuter Student

Chickering (1974) also discusses the limitations lack of commuter student involvement has on their development by stating "because substantial differences exist, and persist, in the range of noncourse experiences and interpersonal relationships, nonintellectual changes occur more slowly" (p. 44). Schuchman (1974) identified four developmental tasks of the commuter student population. Learning to deal with authority (p. 468) is the first. Commuter students find difficulty progressing to an independent position or to
a position of joint decision making. Also, the skepticism and suspicion about college authority that causes avoidance or noninvolvement by the student is often a result of struggles with parental authority. The second task is the management of impulses (p. 468). Feelings of frustration, anxiety, and hostility often results because the college environment is perceived as foreign and inflexible. Maintenance of self esteem (pp. 468-469) is third. Feelings of inadequacy may result from the struggle for acceptance and involvement during the first year or two. Last, is the task of establishing a suitable identity (p. 469). Conflicts in identity often result from limited exposure to new ideas and concepts and from gaps between student-faculty and student-peer relationships.

According to Chickering (1974), there are two fundamental changes necessary for higher education to make quality experiences equally available to all. First, higher education should "recognize that the impact of an educational program depends heavily on the characteristics of the students coming to it; that programs must be modified in response to changing student characteristics. Second, higher education must recognize "that there is much more to learn than what is in books and more to learning than listening to lectures" (p. 30). Knefelkamp and Stewart
(1983) identify several challenges for student personnel administrators concerning the education environment of commuter students in "Toward A New Conceptualization Of Commuter Students: The Developmental Perspective." Their list includes the topics of the development of more effective learning environments, articulation of commuters demographics and characteristics, and recreational program design that challenges and supports. Recreational sports administrators should recognize that many of their challenges are pertinent to intramural sports programming.
CHAPTER III
METHODOLOGY

Design
This study utilized descriptive survey research methodology (quantitative analysis) as its primary source for generating data. The case study (qualitative analysis) methodology was used as the supplemental (secondary) source for generating data.

"Some educators do not merely collect facts to obtain an accurate description of existing status; they also endeavor to trace interrelationships between facts that will provide a deeper insight into the phenomena" (Van Dalen, 1979, p. 294). Van Dalen continues to support a multiple method design by stating that "because word descriptors reveal a wealth of enlightening information that a quantitative study might not be able to produce, the case study is often used to supplement the survey method" (p. 295).

Triangulation is a combination of methodologies in the study of the same phenomenon. It stimulates the researcher to create new ways of capturing a problem to balance conventional data collection methods. Due to the strengths
and weaknesses of both methods it is often viewed as desirable to combine the two for a more complete analysis.

The mixing of methods is a cross validation showing that variance is of trait and not due to method. Therefore, the researcher is provided more confidence in results and can better synthesize and integrate theory into practice. Young (1956) concludes that "the most meaningful numerical studies in social science are those which are linked with exhaustive case studies describing accurately the interrelationship of factors and processes" (p. 230).

Definition of Population

The population of the study consisted of full-time, undergraduate (17-24 year olds), upperclassmen (juniors/seniors) enrolled at Xavier University during the Spring 1990 and Fall 1990 semesters.

The total part-time and full-time undergraduate enrollment for Spring 1990 was 3,874. Of the 3,874 enrolled 2,687 were full-time (69%). Of the 2,687 there were 1,236 men (46%) and 1,451 women (54%).

The total part-time and full-time undergraduate enrollment for Fall 1990 was 4034. Of the 4034 enrolled 2855 were full-time (71%). Of the 2855 there were 1284 men (44%) and 1571 women (56%).
Census/Sampling Procedures

The method of subject selection was a cluster sample, of convenience, of stratified groups. The population of students defined above were stratified into groups by the independent variables class standing, sex (male/female), residence status (resident/commuter), and participation rate (frequent, infrequent, and non).

Frequent and infrequent participants were identified by the previous Assistant Director of Intramural Sports and his staff. Prior to this research project demographic data was not maintained. Due to the small population identified by the intramural sports staff a census of each group was completed to enhance data collection and analysis. Nonparticipants were identified by the Director of Student Activities from a list of all full-time upperclassmen enrolled during Fall 1990. The number of nonparticipants randomly selected for the study was limited in an effort to compliment the participant groups. Both lists were cross checked for accurate placement.

The cluster, one of the more popular methods of sampling in survey research, was completed by the researcher. Six students from each of the eight participants groups and eight students from each of the
nonparticipant groups were selected by the researcher. The total number of subjects selected for the study was eighty.

Quantitative Instrumentation

The instrument selected for use in this study was the 140 item Student Development Task and Lifestyle Inventory (SDTLI) (Appendix A). The SDTLI is a multidimensional assessment instrument designed for use with traditional aged, undergraduate students. The SDTLI is specifically designed for evaluation of co-curricular programs. This is the third revision of the Student Development Task Inventory (Prince, Miller and Winston, 1974) and its conceptual base is the work of Arthur Chickering in Education and Identity.

Of the 140 items, 135 are content items which permit generalization to developmental domains. These content items describe activities, attitudes, and feelings. The five additional items are to assist in identifying response bias. Students respond to each item by indicating whether it is basically an accurate description (true) or inaccurate description (false). The SDTLI has about a 12th grade (11.8) reading level and an 11th grade (11.1) item content level and requires 25-30 minutes to complete. The recommended administrative procedure is in groups under standard testing conditions. The instrument can yield
idiographic interpretation as well as normative interpretation. For this study the normative interpretation was utilized.

The SDTLI consists of three developmental tasks and three scales. "Establishing and Clarifying Purpose Task (PUR), Developing Mature Interpersonal Relationships Task (MIR), Developing Academic Autonomy Task (AA), Salubrious Lifestyles Scale (SL), Intimacy Scale (INT), and Response Bias Scale (RB). Two of the Tasks are further defined by Subtasks. PUR is composed of the (a) Educational Involvement (EI), (b) Career Planning (CP), (c) Lifestyle Planning (LP), (d) Life Management (LM), and (e) Cultural Participation (CUP) Subtasks. MIR is composed of the (a) Tolerance (TOL), (b) Peer Relationships (PR), and (c) Emotional Autonomy (EA) Subtasks" (Winston and Miller 1987, p. 8).

Twelve hundred undergraduate students, age 17-24, from 20 different colleges in the United States and Canada participated in a study to establish norms for this instrument. Normative data was generated by utilizing means, standard deviations, and sample distributions.

Reliability estimates were made by two methods, test-retest and internal consistency. All test-retest correlations were statistically significant at the .01 level
meaning that the SDTLI has relatively high temporal stability. Internal consistency was determined by the alpha-coefficient, inter-item and item-total correlation procedures. Alpha-coefficients ranged from .90 to .50, inter-item correlation for the total inventory was .93 and mean item-total correlations ranged from .21 to .41.

The interrelationships of the three developmental tasks, establishing and clarifying purpose (PUR); developing mature interpersonal relationships (MIR); and developing academic autonomy (AA) were determined. The PUR and MIR Tasks are relatively independent of each other. The AA Task is relatively highly correlated with both PUR and MIR (.41 and .39 respectively) (Winston and Miller, 1987). Validity estimates were established as follows. The Establishing and Clarifying Purpose Task (PUR) was correlated with instruments that were thought to be conceptually related. PUR has relatively high correlation with the Career Planning Scale (.70) and with the Career Exploration Scale (.49) from the Career Development Inventory. Also PUR is moderately highly correlated (.47) with the Confidence Scale of the College Student Questionnaire. Developing Mature Interpersonal Relationships Tasks (MIR) correlated .37 with the Mines-Jenson Interpersonal Relationships Inventory. This gives support to the MIR's validity, but also suggests
that the two do not measure exactly the same constructs. MIR was also significantly correlated with nine scales from the Omnibus Personality Inventory. The Academic Autonomy Task (AA) was positively correlated with three scales from Omnibus Personality Inventory (.36 to 152) and two scales from the Mines-Jenson Interpersonal Relationships Inventory (.49) (Winston and Miller, 1987).

**Qualitative Instrumentation**

The secondary data collection process developed for this study was designed to qualitatively compliment the quantitative data obtained from the SDTLI.

The researcher has a thorough comprehension of the major dimensions of the program being studied and has developed and categorized open-ended questions to be utilized in a Semi-Directed Focused Interview with each subject. Two sets of questions were developed. One set (Appendix B) was prepared for response by frequent and infrequent intramural sports participants. The second set (Appendix C) of questions were developed in a similar fashion for response by the nonparticipant group.

The researcher reviewed previously used instruments in recreational sports publications (Zerneck, 1982 and Stobart, 1985) as a guide for question development. The questions
were then matched with the three student development vectors of this study utilizing definitions of the vectors by Arthur Chickering (1969). Review and revision of the questions was completed by a panel of experts.

In addition to the review by the panel of experts the criteria of authenticity has been applied to the interview questions to establish scientific adequacy.

The classic criteria of authenticity includes establishing validity, reliability, and objectivity. Since qualitative research utilized "demanding, though not necessarily standardized, procedures" (Taylor and Bogden, 1984, p. 7) and "it is not possible to achieve perfect reliability" (p. 7) the conventional terms will be redefined according to Guba (1978): "intrinsic adequacy in lieu of internal validity, extrinsic adequacy in lieu of external validity or generalizability, replicability in lieu of reliability, and impartiality in lieu of objectivity" (p. 62).

Similarity between study data and researched phenomena is an important factor in establishing intrinsic adequacy. Distortions in data gathering techniques were overcome by careful recoding of data and assessment of subject credibility through the use of cross-examination in the interview question development.
Although external validity is reinforced by internal validity, Guba (1978) suggests that an overemphasis in control may in fact achieve high internal validity it "may seriously affect the external validity because the findings can then, at best, be said to be generalizable only to other, similarly controlled situations" (p. 68). He concludes that "whether or not certain information is generalizable is a function of the degree to which the situation being investigated is a representative 'slice of life', as well as a function of the isomorphism between the situation in which it was generated and the situation to which it is to be generalized" (p. 68).

Critics of qualitative research often take issue with replicability. An effort to establish validity often demonstrates reliability. The methods used to establish intrinsic adequacy demonstrates replicability. Although qualitative evaluation of this study was to inform a decision, and to determine the effectiveness of a method the triangulation analysis incorporated establishes replicability. Guba (1978) identifies the concepts of openness and fairness as being relevant to the establishment of neutrality (impartiality). The researcher provided to all subjects by not assuming mutual experiences, mutual psychological characteristics and attributes, or mutual
conceptual understandings. The concept of fairness was established by fulfilling the obligation to remain unbiased.

Collection of Data

During both testing periods (Spring 1990/Fall 1990) the researcher administered the SDTLI under standard testing conditions (Appendix B and C). The subjects self selected a convenient time from the scheduled testing periods (Appendix B and C). Individuals selected as the sample populations were notified by mail and contacted by phone as to these times. If anyone in the sample population had a conflict, and individual time was arranged to take the SDTLI. The collection of data during Spring 1990 began on April 17, 1990 and concluded on May 11, 1990. During Fall 1990 data was collected from September 24, 1990 to October 12, 1990. An introductory statement of the purpose of the research and an explanation of the sampling procedures was read to the subject group by the researcher. Subjects were instructed to complete the demographic information sheet provided by the researcher. The answer sheet and the supplemental demographic sheets were coded for purposes of cross referencing. Students were told to complete (not omit any questions) all items in Section 1 and Section 3 of the survey. Subjects were told to complete Section 2, which
deals with intimate relationships, only if they have been involved in an intimate relationship during the past 12 months. The subjects were then instructed to read the directions on page one of the survey booklet before beginning and to read all instructions prior to each section. Upon completing the SDTLI the subjects were asked to return the survey booklet, answer sheet, and supplemental demographic information form to the researcher. After returning all forms to the researcher each individual subject scheduled a time for the Semi-Directed Focused Interview. The interviews were held in the researcher's office. The answers to the open-ended questions were recorded on a tape recorder to assist the researcher in coding the information.

**Scoring Procedures (Quantitative Data)**

The answer sheet for the SDTLI consists of two parts: an original (Appendix D) and carbon copy (Appendix E). The carbon copy of the answer sheet is used for scoring. The keyed response for each item is indicated.

Scoring is accomplished by counting the number of circled Ts and Fs in each subtask or scale area. Subtasks and scales are identified by alternating shaded and unshaded areas. The number of circled Ts and Fs are entered
following the subtask/scale abbreviation. Task scores for Purpose (PUR) and Interpersonal Relationship (MIR) are entered by summing appropriate subtasks scores. (PUR is composed of EI, CP, LP, LM, and CUP; MIR is composed of TOL, PR, and EA). The score for Autonomy is indicated by AA.

Response Bias (RB) items are numbers 5, 73, 99, 129, and 137. Answers to these items are not included in the scoring process. Any SDTLI with a RB of 3 or higher indicates a student unrealistically representing himself or was careless in completing the inventory (possibly random marking).

Raw scores for each subtask and task were converted to standard scores (T scores: mean = 50, standard deviation = 10) by referring to Appendix A of the Student Development Task and Lifestyle Inventory Manual (Winston and Miller, 1987). An example of a scored SDTLI with T-scores can be found in Appendix F.

**Scoring Procedures (Qualitative Data)**

The data from the Semi-Directed Focused Interviews were treated as summary information. Descriptors (Appendix G) for each of the three vectors were compiled by the researcher utilizing Chickering's (1969), definitions and
the definitions by Winston and Miller (1987). Comments by
the subjects for each question were coded pro/con
(positive/negative) by the researcher.

Each subject's interview was coded twice to assure
accurate coding. The percent of total pro versus con
comments by each demographic group for the three vectors
were calculated and used as support information for the
quantitative analysis.

Analysis of Data

Kerlinger (1973), describes analysis as "the
categorizing, ordering, manipulating, and sumarizing of data
to obtain answers to research questions" (p. 134). He
continues by stating that the type of analysis must be
congruent with research design, method of observation, and
method of measurement (p. 153).

The small population size of each of the stratified
clustered participation groups (frequent/infrequent)
prohibited randomness and therefore parametric (t-test,
ANOVA) and nonparametric (chi-square) analysis was
inappropriate for this research project.

The small census population of the participation groups
resulted in a nonprobability sample. Although
nonprobability samples lack the virtues of randomness it is
often unavoidable; therefore, the researcher utilized
purposive sampling to make a deliberate effort to obtain
representative groups typical to the total population.

The concepts of action research, information gathering
to solve an immediate problem, and applied research,
information gathering to make inferences about a target
population, were utilized to describe and compare the
tendencies of perceived development by all demographic
groups.

The analysis of the SDTLI data along with the frequency
(content) analysis of the qualitative data allowed for
comparison of an individual group's performance to a sample
of like groups. This information provided an accurate
picture of the perceived developmental status of the groups.
Information was also used as a program evaluation tool to
estimate the effectiveness of intramural sports
participation on total student development.
CHAPTER IV
ANALYSIS OF DATA

Data discussed in this chapter was collected during Spring 1990 and Fall 1990 semesters at Xavier University, Cincinnati, Ohio.

The quantitative data generated from the Student Development Task and Lifestyle Inventory (SDTLI) was analyzed by converting raw scores for each subtask and scale into T-scores (mean = 50 and standard deviation = 10). As previously discussed, the small population resulted in nonprobability samples which prohibited the use of parametric or nonparametric analysis. Hopkins and Glass (1978) stated that "if a distribution contains all of the observations in the population, the measures of central tendency and variability are the parameters" (p. 86). Therefore the descriptive analysis of the SDTLI data will be reported around the variability of the T-scores between demographic groups.

Because of the relatively low alpha-coefficient for several of the subtasks the more reliable measures according
to Winston and Miller (1987), were the total task scores. The total task scores will be the main focus of the SDTLI analysis.

Winston and Miller (1987) discussed that the normative interpretation can be used as a guide for an institution to identify areas in which program intervention is needed. The researcher will also utilize an analysis of the central tendencies between groups on the subtasks to generate more detailed information which may be applicable to the Xavier University Intramural Sports program design and delivery. A description of each subtask can be found in Appendix H.

The qualitative data generated from the Semi-Directed Focused Interview was analyzed by determining percentages of pro/con responses. The pro/con responses by each subject indicated a positive or negative perception of the influence intramural sports participation has had on the development of the 3 vectors (purpose, interpersonal relationships, and autonomy). The qualitative analysis was used as a secondary source of information. The application of results of the Semi-Directed Focused Interview will be incorporated with the SDTLI Analysis review.

Data (T scores) from the SDTLI for all demographic categories fell within 1 standard deviation above or below
the mean. Therefore, the analysis of data in relationship to the research questions will be reported by comparing the central tendencies with the frequencies.

Characteristics of Subjects

There were twelve demographic categories identified for this study. Eighty subjects (40 men and 40 women) were initially selected. Thirty-six men (90%) and thirty-seven women (93%) completed both portions of the study (Table 1).

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>N</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female-resident-frequent-user (FRF)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Female-resident-infrequent-user (FRI)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Female-resident-nonuser (FRN)</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Male-resident-frequent-user (MRF)</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Male-resident-infrequent-user (MRI)</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Male-resident-nonuser (MRN)</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Female-commuter-frequent-user (FCF)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Female-commuter-infrequent-user (FCI)</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Female-commuter-nonuser (FCN)</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Men-commuter-frequent-user (MCF)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Men-commuter-infrequent-user (MCI)</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Men-commuter-nonuser (MCN)</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

Analysis of Research Questions

1. If the perceived development of purpose is to be related to the amount of participation in intramural sports
then resident female upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

FRF indicate a higher degree of development in the Educational Involvement (EI), Career Planning (CP), Lifestyle Planning (LP), and Cultural Participation (CUP) subtasks than FRI and FRP indicate a higher degree of development in the Educational Involvement (EI), Lifestyle Planning (LP), Life Management (LM), and Cultural Participation (CUP) subtasks (Table 2). Combining results of all subtasks provides a general result which indicated participation in intramural sports as well as the level of participation appear to positively enhance the development of purpose. The qualitative data supports this analysis. FRF indicated a higher perception of development than FRI (76%-58%) (Table 14). FRP also perceived a higher degree of development in the vector purpose (65%) than the FRN (56%) (Table 14).

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Student Development Task Lifestyle Inventory</th>
<th>Female Resident Results - Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>Subtasks</td>
<td>Purpose</td>
</tr>
<tr>
<td>EI</td>
<td>CP</td>
<td>LP</td>
</tr>
<tr>
<td>FRF-FRI</td>
<td>56-48</td>
<td>53-49</td>
</tr>
<tr>
<td>FRP-FRN</td>
<td>53-49</td>
<td>51-50</td>
</tr>
</tbody>
</table>
2. If the perceived development of interpersonal relationship is to be related to the amount of participation in intramural sports then resident female upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

FRF indicated a higher degree of development in the Tolerance (TOL) and Emotional Autonomy (EA) subtasks than FRI and FRP indicated a higher degree of development in the Tolerance (TOL), Peer Relations (PR), and the Emotional Autonomy (EA) subtasks (Table 3). Combining results of all subtasks again indicated participation in intramural sports as well as level of participation appear to positively enhance the development of interpersonal relationship. The qualitative data showed a high positive perception of development for FRF (71%) and FRI (82%) (Table 15). The FRP indicated a higher perception of development than FRN (76% - 57%) (Table 15).

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Student Development Task Lifestyle Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Resident Results - Interpersonal Relationship</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Subtasks</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOL</td>
</tr>
<tr>
<td>FRF-FRI</td>
<td>54-50</td>
</tr>
<tr>
<td>FRP-FRN</td>
<td>52-47</td>
</tr>
</tbody>
</table>
3. If the perceived development of autonomy is to be related to the amount of participation in intramural sports then resident female upperclassmen degree of perceived development will be positively correlated with the frequency of participation.

The quantitative data revealed a higher degree of development for autonomy for both FRF versus FRI and FRP versus FRN (Table 4). All three groups displayed a high perception of development during the qualitative analysis (FRF - 68% versus FRI 73%; FRP - 70% versus FRN - 66%) (Table 16). Both methods of analysis indicated participation in intramural sports as a positive contribution to the development of autonomy.

<table>
<thead>
<tr>
<th>Category</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRF-FRI</td>
<td>53-50</td>
</tr>
<tr>
<td>FRP-FRN</td>
<td>52-48</td>
</tr>
</tbody>
</table>

4. If the perceived development of purpose is to be related to the amount of participation in intramural sports then resident male upperclassmen degree of perceived development will be positively correlated with the frequency of participation.
MRF demonstrated higher degree of development in Educational Involvement (EI), Career Planning (CP), Lifestyle Planning (LP) and Lifestyle Management (LM) subtasks than MRI. MRP demonstrated a higher degree of development in Educational Involvement (EI), Career Planning (CP), and Cultural Participation (CUP) subtasks (Table 5). Combining subtask results provided a general result which indicated participation in intramural sports as well as level of participation appear to positively enhance development of purpose. The qualitative analysis reveals a higher perception of development for MRF (77%) versus MRI (65%) than MRP versus MRN (approximately 70% each) (Table 14).

<table>
<thead>
<tr>
<th>Category</th>
<th>Subtasks</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>CP</td>
<td>LP</td>
</tr>
<tr>
<td>MRF-MRI</td>
<td>54-51</td>
<td>58-55</td>
</tr>
<tr>
<td>MRP-MRN</td>
<td>53-46</td>
<td>57-53</td>
</tr>
</tbody>
</table>

5. If the perceived development of interpersonal relationship is to be related to the amount of participation in intramural sports then resident male upperclassmen degree of perceived development will be positively correlated with the frequency of participation.
The results of the quantitative data analysis exhibited no difference in the development of interpersonal relationship for the level of participation in intramural sports. However, comparing the MRP versus MRN displayed a higher degree of development for the participant group in all three subtask areas (Tolerance-TOL, Peer Relations-PR, and Emotional Autonomy-EA). The same trend was represented when combining subtask results for the interpersonal relationship task (Table 6). The qualitative results indicated a slightly higher degree of development perceived by MRF (75%) versus MRI (68%). The MRP and MRN both indicated a positive perception of development (approximately 72% each) (Table 15).

<table>
<thead>
<tr>
<th>Table 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Development Task Lifestyle Inventory</strong></td>
</tr>
<tr>
<td><strong>Male Resident Results - Interpersonal Relationship</strong></td>
</tr>
<tr>
<td><strong>Category</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>MRF-MRI</strong></td>
</tr>
</tbody>
</table>

6. If the perceived development of autonomy is to be related to the amount of participation in intramural sports
then resident male upperclassmen degree of perceived development will be positively correlated with the frequency of participation.

The quantitative data revealed a higher degree of development for autonomy for both MRF versus MRI and MRP versus MRN (Table 7). All three groups displayed a high perception of development during the qualitative analysis (MRF 69%, MRI 77%, MRN 80%) (Table 16).

![Table 7](image)

<table>
<thead>
<tr>
<th>Category</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRF-MRI</td>
<td>52-47</td>
</tr>
<tr>
<td>MRP-MRN</td>
<td>50-45</td>
</tr>
</tbody>
</table>

7. If the perceived development of purpose is to be related to the amount of participation in intramural sports then commuter female upperclassmen degree of perceived development will be positively correlated with the frequency of participation.

FCF indicated a higher degree of development in Educational Involvement (EI), Career Planning (CP), and Lifestyle Planning (LP) subtasks than FCI and FCP indicated a higher degree of development in Life Management (LM) and Cultural Participation (CUP) subtasks (Table 8). The
development of purpose appeared to be positively influenced by participation in intramural sports as well as level of participation. The qualitative data supports this finding. FCF responded with 84% positive comments during the interview while FCI responded with 76% (Table 14). Also, the FCP group had a higher positive response rate (79%) than the FCN (60%) (Table 14).

Table 8
Student Development Task Lifestyle Inventory
Female Commuter Results - Purpose

<table>
<thead>
<tr>
<th>Category</th>
<th>Subtasks</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EI</td>
<td>CP</td>
</tr>
<tr>
<td>FCF-FCI</td>
<td>54-47</td>
<td>52-45</td>
</tr>
<tr>
<td>FCP-FCN</td>
<td>51-51</td>
<td>49-49</td>
</tr>
</tbody>
</table>

8. If the perceived development of interpersonal relationship is to be related to the amount of participation in intramural sports then commuter female upperclassmen degree of perceived development will be positively enhanced with the frequency of participation.

Table 9
Student Development Task Lifestyle Inventory
Female Commuter Results - Interpersonal Relationship

<table>
<thead>
<tr>
<th>Category</th>
<th>Subtasks</th>
<th>Interpersonal Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOL</td>
<td>PR</td>
</tr>
<tr>
<td>FCF-FCI</td>
<td>48-46</td>
<td>50-50</td>
</tr>
<tr>
<td>FCP-FCN</td>
<td>47-41</td>
<td>50-46</td>
</tr>
</tbody>
</table>
9. If the perceived development of autonomy is to be related to the amount of participation in intramural sports then commuter female upperclassmen degree of perceived development will be positively correlated with the frequency of participation.

The quantitative data revealed a higher degree of development for autonomy for both FCF versus FCI and FCP versus FCN (Table 10). The qualitative analysis supported this finding. All three groups reported a high degree of perceived development of autonomy during the interview (approximately 65% each) (Table 16). Both methods of analysis indicated that participation in intramural sports and level of participation are positive contributions to the development of autonomy.

<table>
<thead>
<tr>
<th>Category</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCF-FCI</td>
<td>60-54</td>
</tr>
<tr>
<td>FCP-FCN</td>
<td>57-50</td>
</tr>
</tbody>
</table>

10. If the perceived development of purpose is to be related to the amount of participation in intramural sports then commuter male upperclassmen degree of perceived development will be positively correlated with the frequency of participation.
MCF indicated a higher degree of development in the Educational Involvement (EI), Career Planning (CP), and Cultural Participation (CUP) subtasks than MCI. MCP indicated a higher degree of development in the Cultural Participation (CUP) subtask than MCN (Table 11). Combining the results of all subtasks provided a general result which indicated participation in intramural sports as well as the level of participation appeared to slightly enhance the development of purpose. The qualitative data also revealed a slightly positive influence on the development of purpose for all three groups (55%) (Table 14). 

<table>
<thead>
<tr>
<th>Category</th>
<th>Subtasks</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EI</td>
<td>CP</td>
</tr>
<tr>
<td>MCF-MCI</td>
<td>53-50</td>
<td>52-48</td>
</tr>
<tr>
<td>MCP-MCN</td>
<td>52-51</td>
<td>50-50</td>
</tr>
</tbody>
</table>

11. If the perceived development of interpersonal relationship is to be related to the amount of participation in intramural sports then commuter male upperclassmen degree of perceived development will be positively correlated with the frequency of participation.
MCF indicated a higher degree of development in the Peer Relations (PR) and Emotional Autonomy (EA) subtasks than MCI. MCP indicated a higher degree of development in the Tolerance (TOL), Peer Relations (PR), and Emotional Autonomy (EA) subtasks (Table 12). When the results of all subtasks are combined there was an indication that interpersonal relationship is positively enhanced by participation in intramural sports as well as the level of participation. The qualitative data supported the claim that participation enhances development (MCP 80% versus MCN 55%) (Table 15).

<table>
<thead>
<tr>
<th>Category</th>
<th>Subtasks</th>
<th>Interpersonal Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOL</td>
<td>PR</td>
<td>EA</td>
</tr>
<tr>
<td>MCF-MCI</td>
<td>56-54</td>
<td>55-42</td>
</tr>
<tr>
<td>MCP-MCN</td>
<td>55-50</td>
<td>49-45</td>
</tr>
</tbody>
</table>

12. If the perceived development of autonomy is to be related to the amount of participation in intramural sports then commuter male upperclassmen degree of perceived development will be positively correlated with the frequency of participation.
The quantitative data revealed no difference in the development of autonomy for the level of participation. However, participation in intramural sports did positively enhance development of autonomy when comparing the participant group versus the nonparticipant group (Table 13). The qualitative data indicated no difference in perceived development of autonomy (MCF - 55%; MCI - 61%; and MCN - 57%) (Table 16).

### Table 13
**Student Development Task Lifestyle Inventory**  
**Male Commuter Results - Autonomy**

<table>
<thead>
<tr>
<th>Category</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCF-MCI</td>
<td>50-49</td>
</tr>
<tr>
<td>MCP-MCN</td>
<td>50-45</td>
</tr>
</tbody>
</table>

### Table 14
**Semi-Directed Focused Interview**  
**Question/Response Analysis Purpose**

<table>
<thead>
<tr>
<th>Category</th>
<th>PRO</th>
<th>CON</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRF</td>
<td>41/76%</td>
<td>13/24%</td>
<td>54</td>
</tr>
<tr>
<td>FRI</td>
<td>38/58%</td>
<td>29/42%</td>
<td>67</td>
</tr>
<tr>
<td>FRN</td>
<td>23/56%</td>
<td>18/44%</td>
<td>41</td>
</tr>
<tr>
<td>MRF</td>
<td>47/77%</td>
<td>14/23%</td>
<td>61</td>
</tr>
<tr>
<td>MRI</td>
<td>45/65%</td>
<td>24/35%</td>
<td>69</td>
</tr>
<tr>
<td>MRN</td>
<td>31/74%</td>
<td>11/26%</td>
<td>42</td>
</tr>
<tr>
<td>FCF</td>
<td>31/84%</td>
<td>6/16%</td>
<td>37</td>
</tr>
<tr>
<td>FCI</td>
<td>31/76%</td>
<td>10/24%</td>
<td>41</td>
</tr>
<tr>
<td>FCN</td>
<td>38/60%</td>
<td>25/40%</td>
<td>63</td>
</tr>
<tr>
<td>MCF</td>
<td>46/56%</td>
<td>36/44%</td>
<td>82</td>
</tr>
<tr>
<td>MCI</td>
<td>33/52%</td>
<td>29/47%</td>
<td>62</td>
</tr>
<tr>
<td>MCN</td>
<td>34/58%</td>
<td>25/42%</td>
<td>59</td>
</tr>
</tbody>
</table>
### Table 15
Semi-Directed Focused Interview Question/Response Analysis Interpersonal Relationship

<table>
<thead>
<tr>
<th>Category</th>
<th>Pro</th>
<th>Con</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRF</td>
<td>41/71%</td>
<td>17/29%</td>
<td>58</td>
</tr>
<tr>
<td>FRI</td>
<td>46/82%</td>
<td>10/18%</td>
<td>56</td>
</tr>
<tr>
<td>FRN</td>
<td>30/57%</td>
<td>23/43%</td>
<td>53</td>
</tr>
<tr>
<td>MRF</td>
<td>52/75%</td>
<td>17/25%</td>
<td>69</td>
</tr>
<tr>
<td>MRI</td>
<td>41/68%</td>
<td>19/32%</td>
<td>60</td>
</tr>
<tr>
<td>MRN</td>
<td>35/73%</td>
<td>14/27%</td>
<td>49</td>
</tr>
<tr>
<td>FCF</td>
<td>41/85%</td>
<td>7/15%</td>
<td>48</td>
</tr>
<tr>
<td>FCI</td>
<td>34/76%</td>
<td>11/24%</td>
<td>45</td>
</tr>
<tr>
<td>FCN</td>
<td>25/81%</td>
<td>6/19%</td>
<td>32</td>
</tr>
<tr>
<td>MCF</td>
<td>39/63%</td>
<td>8/17%</td>
<td>47</td>
</tr>
<tr>
<td>MCI</td>
<td>47/78%</td>
<td>13/22%</td>
<td>60</td>
</tr>
<tr>
<td>MCN</td>
<td>23/55%</td>
<td>19/35%</td>
<td>42</td>
</tr>
</tbody>
</table>

### Table 16
Semi-Directed Focused Interview Question/Response Analysis Autonomy

<table>
<thead>
<tr>
<th>Category</th>
<th>Pro</th>
<th>Con</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRF</td>
<td>21/68%</td>
<td>10/32%</td>
<td>31</td>
</tr>
<tr>
<td>FRI</td>
<td>19/73%</td>
<td>7/27%</td>
<td>26</td>
</tr>
<tr>
<td>FRN</td>
<td>23/66%</td>
<td>12/34%</td>
<td>35</td>
</tr>
<tr>
<td>MRF</td>
<td>11/69%</td>
<td>5/21%</td>
<td>16</td>
</tr>
<tr>
<td>MRI</td>
<td>23/77%</td>
<td>7/23%</td>
<td>30</td>
</tr>
<tr>
<td>MRN</td>
<td>24/80%</td>
<td>6/20%</td>
<td>30</td>
</tr>
<tr>
<td>FCF</td>
<td>14/66%</td>
<td>7/34%</td>
<td>21</td>
</tr>
<tr>
<td>FCI</td>
<td>13/63%</td>
<td>6/32%</td>
<td>19</td>
</tr>
<tr>
<td>FCN</td>
<td>25/69%</td>
<td>11/31%</td>
<td>36</td>
</tr>
<tr>
<td>MCF</td>
<td>10/55%</td>
<td>8/135%</td>
<td>18</td>
</tr>
<tr>
<td>MCI</td>
<td>13/61%</td>
<td>20/39%</td>
<td>33</td>
</tr>
<tr>
<td>MCN</td>
<td>25/57%</td>
<td>19/43%</td>
<td>44</td>
</tr>
</tbody>
</table>
Discussion

Although the data analysis of this study did not include a parametric or nonparametric statistic the results have provided valuable information which contributes not only to Xavier University intramural sports program but also to the field of recreational sports.

The literature review identified the belief that there is a connection between participation in co-curricular activities and total student development. The results of this study were modest but the researcher continues to believe that intramural sports participation can have a positive influence on the educational process of undergraduate students.

The analysis of the participation categories of this study (frequent/infrequent) revealed the high positive perception students have about the importance intramural sports involvement has on the undergraduate educational experience at Xavier University. The positive perceptions, although lower, of the nonparticipant groups further substantiated the fact that co-curricular programs in general are a part of total student development.

Recreational sports professionals must continue to include participant perception of program contributions in the design and delivery of activities and services. This
cooperative effort will allow for appropriate practical application of student development theory in higher education.
CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

The application of the results of this study has potential not only for enhancing program design and delivery but for enhancing individual development. The information gained from this study can be used as part of a needs assessment to establish a developmental profile of Xavier University intramural sports participants. An estimate of the effect of programs on participants' development was also provided by the analysis of this study.

Because there are no proven formulas for student development, as a contributor to the field of recreational sports, this study can be used as a foundation for further research.

Conclusions

1. Personal development as well as academic achievement is an important function of higher education. Recreational Sports professionals must accept the responsibility of contributing to the documentation of the influence participation has on total student development.
2. Leadership by recreational sports professionals will provide concerted efforts to constructively contribute to the student development process.

3. Continued effort to conceptualize student development theory, refine assessment processes, study the link between student development and its antecedent causes will open new paths of program design and delivery.

4. The use of qualitative research and triangulation in Recreational Sports will be influential in decreasing the disparity between knowledge and practice.

Recommendations For Future Research and Xavier University

Each institution is unique; what is appropriate for one student body or institution may not be appropriate for another. The recommendations listed below represent the belief by the researcher that recreational sports programs and services provide developmental opportunities and further documentation of the contributions could be provided in the following ways.

1. Complete a replicated study using a larger sample population of the same demographic groups.

2. Complete longitudinal research projects utilizing pre/post test methodology comparing freshmen to seniors, seniors to alumni, etc.
3. The development of a precise/standardized qualitative instrument utilizing Chickering's theory would be an important contribution to continued use of triangulation in recreational sports research.

4. Further research should be conducted utilizing Chickering's vectors on all Recreational Sports programming areas (informal sports, club sports.)

5. Continued comparison between participant and nonparticipant groups are needed to support the hypothesis that recreational sports programming contributes to total student development.

6. Complete an historical review and analysis of all research combining recreational sports programming and student development theory as a guide for research design.

7. Conduct research to compare the perceptions of professionals and students from the same universities to determine the quality of program design and delivery toward student development.

8. Complete research related to the contributions of obtaining a student employee position with recreational sports department.

9. Conduct research utilizing other aspects of programming such as: the type of sport (individual, dual, team), level of ability (beginner, intermediate, advanced),
availability of leadership positions (captains, managers, committee/board members, residence hall floor leaders).

10. Apply an item analysis to a study incorporating the triangulation process using the SDTLI and the Semi-Directed Focused Interview. This would provide detailed information on subtask development.
APPENDIX A

STUDENT DEVELOPMENT TASK AND LIFESTYLE INVENTORY
PLEASE NOTE

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

96-108

University Microfilms International
APPENDIX B
DATA COLLECTION - PARTICIPANTS
April 24, 1990

Dear :

You have been selected as a part of a group of upperclassmen to participate in a Student Development research project sponsored by the Recreational Sports Department.

The purpose of this project is to investigate the perceived influence of intramural sports participation on student development. The data from this project will not only guide the future direction of the Recreational Sports Department but also document the educational impact of co-curricular activities.

This is a two part study. Part One is a group standardized test which will require 30 minutes of your time. Part Two is an individual interview with the researcher which will require 30-45 minutes of your time. The dates and times for administration of Part One are listed below.

<table>
<thead>
<tr>
<th>DAY</th>
<th>DATE</th>
<th>TIME</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>5/1</td>
<td>4:30 p.m.</td>
<td>Dolly Cohen Room</td>
</tr>
<tr>
<td>Wednesday</td>
<td>5/2</td>
<td>5:00 p.m.</td>
<td>Dolly Cohen Room</td>
</tr>
<tr>
<td>Thursday</td>
<td>5/3</td>
<td>6:00 p.m.</td>
<td>Dolly Cohen Room</td>
</tr>
<tr>
<td>Friday</td>
<td>5/4</td>
<td>3:00 p.m.</td>
<td>Dolly Cohen Room</td>
</tr>
<tr>
<td>Monday</td>
<td>5/7</td>
<td>6:00 p.m.</td>
<td>Dolly Cohen Room</td>
</tr>
<tr>
<td>Tuesday</td>
<td>5/8</td>
<td>3:00 p.m.</td>
<td>Dolly Cohen Room</td>
</tr>
<tr>
<td>Wednesday</td>
<td>5/9</td>
<td>4:00 p.m.</td>
<td>Dolly Cohen Room</td>
</tr>
<tr>
<td>Thursday</td>
<td>5/10</td>
<td>Noon</td>
<td>Dolly Cohen Room</td>
</tr>
</tbody>
</table>

You will be contacted in the next few days to schedule a time for participation in Part One and Part Two. Your full cooperation is critical to the success of this project.

Thank you in advance for your participation.

Sincerely,

Jim Ray, Director
Recreational Sports

Elaine Todaro, Student Assistant
XAVIER UNIVERSITY
RECREATIONAL SPORTS DEPARTMENT
STUDENT DEVELOPMENT RESEARCH
SUPPLEMENTAL DEMOGRAPHIC INFORMATION FORM
INTRAMURAL SPORTS PARTICIPANTS

Name _______________________

Thank you for your participation in the Xavier University Recreational Sports Department Student Development Research Project. The main purpose of this study is to further document the educational impact participation in co-curricular activities (specifically intramural sports) has on total student development. The analysis of the data collected will be used to guide the Recreational Sports Department in its design and delivery of programs and services which will contribute to the educational process. Again, thank you for your time.

Jim Ray, Director
Recreational Sports
Todaro

Elaine Todaro
Researcher

DEMOGRAPHIC INFORMATION


____Female  ______Senior


6. Residence Status____Resident (living in university housing or within 1/2 mile of majority of your academic career)

____Commuter (living off campus with parents or on own further than 1/2 mile from campus)
Utilize the definitions below when answering participation questions on the following page.

A. **Intramural Sports**: Sports events that are planned or organized on a recreational basis for members confined within the walls or jurisdiction of a setting. Intramural sport represents structured sport participation which requires design and external leadership for its provision. Activities include individual, dual, and team events.

B. **Frequent User**: Individuals taking an active role in the intramural sports program on an average of 2 or more times per week.

C. **Infrequent User**: Individuals taking an active role in the intramural sports program on an average of less than two times per week.

---

1. Describe the extent (frequent/infrequent) and type (individual, dual, team) of involvement in the Xavier University Intramural Sports Program during each year in school.

<table>
<thead>
<tr>
<th>Yr.</th>
<th>School</th>
<th>Frequent User</th>
<th>Infrequent User</th>
<th>Individual</th>
<th>Dual</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. List below any other co-curricular activities you were involved in during each year in school.

Freshman: ____________________________________________________

________________________________________________________
Sophomore: ____________________________________________

_____________________________________________

Junior: ____________________________________________

_____________________________________________

Senior: ____________________________________________

_____________________________________________

If you would like a copy of the results mailed to you complete the following information:

Name ________________________________

Address ________________________________

_______________________________________

Zip ______

Phone (day) __________________________

(evening) ___________________________
DEFINITION OF VECTORS

1. Developing Purpose: Requires formulating plans and priorities that integrate avocational/recreational interests, vocational plans, and lifestyle considerations. Long range purposes and distant goals are established. Knowledge guides action, action is rooted in evaluation, for without comparative values deliberate action is pointless. Well motivated, works for own satisfaction, when plans are clearly formulated learning becomes organized in relation to these plans. Acquisition of carry-over activities.

2. Developing Interpersonal Relationships: Relationships shift toward greater trust, independence and individuality. Becomes less anxious, less defensive, less burdened by inappropriate past reactions. More friendly, spontaneous, respectful. Developing tolerance for a wide range of persons is significant aspect. Diminished need to dominate, feeling of respect can endure arguments, noncommunication, periods of separation. Lesser need to be a joiner. Transfer of skills and learning increase with contact with different people under different conditions.

3. Developing Autonomy: Emotional independence-free from continual/pressing need for reassurance, affection and approval; instrumental independence-ability to carry on activities and cope with problems without seeking help and uses a wide range of resources to aid learning; and interdependence-boundaries of personal choice become clearer, changing conditions make for changing tolerances are all segments of autonomy. Autonomy development leads to character development, openness to a range of alternatives, seeks out new challenges, feels free to disagree/externalize feelings or ideas, able to make good use of available resources, able to work with others, conscious of role in broader scheme, tolerant of differences in others behaviors/points of view.

KEY: (P) = Purpose (12 questions)
(I) = Interpersonal Relationships (9 questions)
(A) = Autonomy (13 questions)

(P) 1. What motivates you to participate in intramural sports? Makes your participation a priority?
2. What is it about your participation that you like the best? What affects your preference of activity choice?

3. Which is more important — playing the game and/or the outcome? Please explain.

4. Do you feel your intramural sports participation provides valuable experiences which will carry over outside of college? In what ways?

5. Do you feel intramural sports participation teaches the individual the importance of a commitment or dedication to a cause? If so, in what ways?

6. Does your participation add to the balance of your life? If so, in what ways?

7. Has your intramural sports participation affected your self image, self-esteem, and self confidence in any way? If so, in what way? Do you feel this carries over to other aspects of your life? If so, in what ways?

8. What motivates you to perform to your fullest during your participation?

9. Does your success/failure ratio affect your motivation to continue participating? What standards do you personally use to determine your success or failure (other than a win/loss record) and how do these experiences affect you psychologically?

10. Do you feel intramural sports participation helps the individual become more self reliant and better able to make decisions? If so, in what ways?

11. Do you feel your academic achievement is enhanced by your participation? If so, in what ways?

12. Do you feel your intramural sports participation has contributed to your education and development? If so, in what ways?

13. Do you believe mistakes made by intramural sports officials in good faith are part of the game and should be accepted as such? Have you ever verbally abused, harassed, or threatened an
intramural sports official? Have you ever apologized to an intramural sports official for abuse directed toward them in the heat of competition? Have you ever thanked or congratulated an intramural sports official for their efforts?

(I) 14. Do you feel participants should always play in such a way so as not to embarass an opponent or run up a score? Has this ever happened to you? How did it make you feel? Have you ever run up a score against an opponent? Have you ever physically or verbally intimidated an opponent? Have you ever apologized to an opponent for rough play?

(I) 15. How much contact do you have with faculty members out of the classroom environment? In what settings do you interact with faculty? Is this interaction important to you? Why/why not? Do you feel this interaction is an important part of the educational process? Why/why not?

(I) 16. In what ways is your participation level affected by the influence of your peers?

(I) 17. Do you believe we live in a cooperative and/or a competitive society? Please explain your answer.

(I) 18. Do you believe intramural sports participation provides opportunities for worthwhile social experiences? If so, in what way?

(I) 19. Do you feel your tolerance and respect for the rights of others have been learned or improved through your participation? How?

(I) 20. Has your participation provided social experiences similar to those that you will encounter later in life? Has your intramural sports participation provided opportunities for you to develop self control which is often crucial to your relationships with other people?

(I) 21. Do you feel your participation helps you maintain a healthful emotional life? Please explain.

(A) 22. Do you feel your participation preference (team, individual) reveals a lot about how you feel about yourself and about your personality? Please explain.
(A) 23. Do you seek out competitive situations against others, against yourself? Please explain.

(A) 24. Does the potential to receive an award or recognition and the type of award affect your attitude toward officials/opponents?

(A) 25. Do you feel your participation in intramural sports teaches you to overlook your own personal desires for the best interest of the group? If so, in what ways?

(A) 26. Do you feel intramural sports participation teaches you the importance of a cooperative effort? If so, in what ways?

(A) 27. Has your participation helped you develop respect and consideration for others? If so, in what ways?

(A) 28. Do you feel your poise in other life situations has been positively affected by your intramural sports participation? If so, in what ways?

(A) 29. Do you feel your intramural sports participation helps you develop the ability to make proper value judgements? (For example: respect authority, abide by rules, cheating, eligibility of players.)

(A) 30. Do you feel your intramural sports participation contributes to your ability to work effectively in a group situation? If so, in what ways?

(A) 31. Have you learned to be responsible for the consequences of your actions through your participation? If so, in what ways?

(A) 32. Do you perceive yourself as an introvert or extrovert? Has this changed due to your participation?

(A) 33. Do you believe your participation aided in the development of a well-rounded personality? If so, in what ways?

(A) 34. Describe how your participation in intramural sports contributed to your total development and education while at Xavier. Do you think this will carry over outside of the university environment? If so, in what ways?
SUMMARY QUESTIONS

35. On a scale of 1-10 (10=high) how has your intramural sports participation contributed to the educational process and your development?

36. On a scale of 1-10 (10=high) where do you rate intramural sports as a contributor to the Xavier general educational process?

37. Do you feel a student development awareness program for intramural sports participants would be a positive contribution to the educational process? If so, in what ways?
APPENDIX C
DATA COLLECTION - NONPARTICIPANTS
September 10, 1990

Dear:

You have been selected as a part of a group of upperclassmen to participate in a Student Development Research Project sponsored by the Recreational Sports Department.

The purpose of this project is to compare and contrast the perceived influence of intramural sports participation on student development with nonparticipants perceived total educational development. The data from this project will not only guide the future direction of the Recreational Sports Department but also document the educational impact of co-curricular activities.

This is a two part study. Part One is a group standardized test which will require 30 minutes of your time. Part Two is an individual interview with the researcher which will require 30-45 minutes of your time. The dates and times for administration of Part One are listed below.

<table>
<thead>
<tr>
<th>DAY</th>
<th>DATE</th>
<th>TIME</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>9/24</td>
<td>11:30 a.m.</td>
<td>Regis Room</td>
</tr>
<tr>
<td>Thursday</td>
<td>9/27</td>
<td>4:00 p.m.</td>
<td>Regis Room</td>
</tr>
<tr>
<td>Friday</td>
<td>10/5</td>
<td>2:00 p.m.</td>
<td>Regis Room</td>
</tr>
</tbody>
</table>

You will be contacted in the next few days to schedule a time for participation in Part One and Part Two. Your full cooperation is critical to the success of this project.

Thank you in advance for your participation.

Sincerely,

[Signatures]

Jim Ray, Director
Recreational Sports

Elaine Todaro
Researcher
Thank you for your participation in the Xavier University Recreational Sports Department Student Development Research Project. The main purpose of this study is to compare and contrast perceived total development of intramural sports participants and nonparticipants. The analysis of the data collected will be used to guide the Recreational Sports Department in its design and delivery of programs and services which will contribute to the educational process. Again, thank you for your time.

Jim Ray, Director
Recreational Sports
Elaine Todaro
Researcher

DEMOGRAPHIC INFORMATION

   Female Senior
6. Residence Status Resident (living in university
   (during a housing or within 1/2 mile of
   majority of campus)
   your academic
   career) Commuter (living off campus with
   parents or on own further than 1/2
   mile from campus)

1. List below any co-curricular activities you were
   involved in during each year in school.

   Freshman: __________________________________________
   ____________________________________________________
   ____________________________________________________
2. List below any Recreational Sports Programs you have participated in (other than intramural sports) during each year in school.

Freshman:

Sophomore:

Junior:

Senior:
If you would like a copy of the results mailed to you complete the following information:

Name ____________________________
Address ____________________________

Zip ______
Phone (day) ________________________
(evening) ________________________
DEFINITION OF VECTORS

1. Developing Purpose: Requires formulating plans and priorities that integrate avocational/recreational interests, vocational plans, and lifestyle considerations. Long range purposes and distant goals are established. Knowledge guides action, action is rooted in evaluation, for without comparative values deliberate action is pointless. Well motivated, works for own satisfaction, when plans are clearly formulated learning becomes organized in relation to these plans. Acquisition of carry-over activities.

2. Developing Interpersonal Relationships: Relationships shift toward greater trust, independence and individuality. Becomes less anxious, less defensive, less burdened by inappropriate past reactions. More friendly, spontaneous, respectful. Developing tolerance for a wide range of persons is significant aspect. Diminished need to dominate, feeling of respect can endure arguments, noncommunication, periods of separation. Lesser need to be a joiner. Transfer of skills and learning increase with contact with different people under different conditions.

3. Developing Autonomy: Emotional independence—free from continual/pressing need for reassurance, affection and approval; instrumental independence—ability to carry on activities and cope with problems without seeking help and uses a wide range of resources to aid learning; and interdependence—boundaries of personal choice become clearer, changing conditions make for changing tolerances are all segments of autonomy. Autonomy development leads to character development, openness to a range of alternatives, seeks out new challenges, feels free to disagree/externalize feelings or ideas, able to make good use of available resources, able to work with others, conscious of role in broader scheme, tolerant of differences in others behaviors/points of view.

KEY: (P) = Purpose (12 questions)
(I) = Interpersonal Relationships (8 questions)
(A) = Autonomy (13 questions)

(P) 1. Why do you choose not to participate in intramural sports?
2. What is it about your choice of co-curricular activities that you like the best? What affects your preference?

3. Which is more important - the process of your co-curricular involvement or the result (outcomes) of the involvement? Please explain.

4. Do you feel your co-curricular involvement provides valuable experiences which will carry over outside of college? In what ways?

5. Do you feel participation in co-curricular activities teaches the individual the importance of a commitment or dedication to a cause? If so, in what ways?

6. Describe the ways in which you balance your life.

7. Has your co-curricular participation affected your self image, self-esteem, and self confidence in any way? If so, in what way? Do you feel this carries over to other aspects of your life? If so, in what ways?

8. What motivates you to perform to your fullest during your involvement?

9. What standards do you personally use to determine success or failure and how do these experiences affect you psychologically?

10. Do you feel co-curricular involvement helps the individual become more self relevant and better able to make decisions? If so, in what ways?

11. Do you feel your academic achievement is enhanced by your involvement? If so, in what ways?

12. Do you feel your co-curricular involvement has contributed to your education and development? If so, in what ways?

13. Have you ever verbally abused, harassed, or threatened a peer who has been in an authority position? Have you ever apologized to the individual for abuse directed toward them? Have you ever thanked or congratulated a peer for their efforts?
14. How much contact do you have with faculty members out of the classroom environment? In what settings do you interact with faculty? If this interaction important to you? Why/why not? Do you feel this interaction is an important part of the educational process? Why/why not?

15. In what ways is your involvement level affected by the influence of your peers?

16. Do you believe we live in a cooperative and/or a competitive society? Please explain your answer.

17. Do you believe co-curricular involvement provides opportunities for worthwhile social experiences? If so, in what way?

18. Do you feel your tolerance and respect for the rights of others have been learned or improved through your involvement? How?

19. Has your involvement provided social experiences similar to those that you will encounter later in life? Has your co-curricular involvement provided opportunities for you to develop self control which is often crucial to your relationships with other people?

20. Do you feel your involvement helps you maintain a healthful emotional life? If so, how?

21. Do you feel your degree of involvement (active/passive) reveals a lot about how you feel about yourself an about your personality? Please explain.

22. Do you seek out competitive situations against others, against yourself? Please explain.

23. Does the potential to receive an award or recognition and the type of award affect your attitude or motivation to become involved?

24. Do you feel your involvement in co-curricular activities teaches you to overlook your own personal desires for the best interest of the group? If so, in what ways?

25. Do you feel your involvement teaches you the importance of a cooperative effort? If so, in what ways?
26. Has your involvement helped you develop respect and consideration for others? If so, in what ways?

27. Do you feel your poise in other life situations has been positively affected by your co-curricular involvement? If so, in what ways?

28. Do you feel your co-curricular involvement helps you develop the ability to make proper value judgements? (For example: respect authority, abide by rules, ethics in decision making, etc.)

29. Do you feel your co-curricular involvement contributes to your ability to work effectively in a group situation? If so, in what ways?

30. Have you learned to be responsible for the consequences of your actions through your involvement? If so, in what ways?

31. Do you perceive yourself as an introvert or extrovert? Has this changed due to your involvement?

32. Do you believe your involvement aided in the development of a well-rounded personality? If so, in what ways?

33. Describe how your involvement in co-curricular activities contributed to your total development and education while at Xavier. Do you think this will carry over outside of the university environment? If so, in what ways?

SUMMARY QUESTIONS

34. On a scale of 1-10 (10=high) how has your co-curricular involvement contributed to the educational process and your development?

35. On a scale of 1-10 (10=high) where do you rate co-curricular programs as a contributor to the Xavier general educational process?

36. Do you feel a student development awareness program for co-curricular program participants would be a positive contribution to the educational process? If so, in what ways?
APPENDIX D
STUDENT DEVELOPMENT TASK AND LIFESTYLE INVENTORY
ANSWER SHEET
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APPENDIX F
STUDENT DEVELOPMENT TASK AND LIFESTYLE INVENTORY
SCORED SAMPLE
APPENDIX G
QUALITATIVE DATA ANALYSIS DESCRIPTORS
QUALITATIVE DATA ANALYSIS DESCRIPTORS

PURPOSE

1. Clearly formulated plans
2. Learning becomes organized
3. Team performance goals
4. Well defined educational goals
5. Actively involved in academic life
6. Active
7. Self directed
8. Regular contact with family
9. Self analysis
10. Synthesis Knowledge
11. Positive personal direction
12. Objectively analyzes self
13. Positive ethics/values
14. Ability to manipulate environment positively

INTERPERSONAL RELATIONSHIPS

1. Disregards stereotypes
2. More flexible relationships with authority
3. Diminished need to dominate
4. Feelings of respect can endure arguments
5. Relate more freely
6. Increased tolerance
7. Increased trust
8. Increased individuality
9. Open to new ideas
10. Decreased need for reassurance
11. Confident decision maker

AUTONOMY

1. Positive relationship with non-parent authorities
2. Self sufficient
3. Ready/able to express own ideas
4. Feels free to disagree
5. Seeks out new challenges
6. Carry out activities alone
7. Aware of/uses others strengths/weaknesses for group welfare
8. Problem solver
9. Independent learner
10. Ready/able to work with others
11. Tolerate differences
12. Able to deal with ambiguity
13. Self disciplined, require minimal direction
APPENDIX H
STUDENT DEVELOPMENT TASK LIFESTYLE INVENTORY
SUBTASKS DESCRIPTION
The PUR Task is further defined by five subtasks: Educational Involvement, Career Planning, Lifestyle Planning, Life Management, and Cultural Participation.

Educational Involvement Subtask (EI). Students who have accomplished this subtask have well-defined educational goals and plans, are knowledgeable about available resources, and are actively involved in the academic life of the college. After careful investigation and self-analysis, they have selected areas of academic concentration for which they are intellectually suited and academically qualified, and with which they are temperamentally compatible. They are not passive learners; they take initiatives to insure that they are obtaining relevant and appropriate educational experiences through activity such as initiating personal study projects, attending non-required lectures and programs, and making regular contact with academic advisors and faculty and staff members.

Career Planning Subtask (CP). An awareness of the world of work, an accurate understanding of one's abilities and limitations, a knowledge of requirements for various occupations, and an understanding of the emotional and educational demands of different kinds of jobs are evidence of accomplishment of this subtask. Students who have achieved this subtask have synthesized knowledge about
themselves and the world of work into a rational order which enables them to make a commitment to a chosen career field and formulate specific vocational plans. They have taken the initial steps necessary to prepare themselves through both educational and practical experiences for eventual employment, and have taken steps necessary for beginning a job search.

Lifestyle Planning Subtask (LP). Achievement of this subtask includes establishing a personal direction and orientation in one's life that takes into account personal, ethical, and religious values, future family plans, and vocational and educational objectives. Plans need not be highly specific nor committed to an absolute, but must be of sufficient clarity to permit identification of appropriate present steps and reflect the establishment of well-thought-out long-range goals. Students who have high achievement on this subtask are self-aware, can objectively analyze their own behaviors, attitudes, and beliefs, and exhibit the capacity to follow through on personal plans and commitments. They can specify how current activities relate to the realization of the kind of future they envision for themselves.

Life Management Subtask (LM). Students who have completed this subtask demonstrate an ability to structure their lives and to manipulate their environment in ways that
allow them to satisfy daily needs and meet responsibilities without extensive direction or support from others. They are able to manage their time and other aspects of their lives in ways that allow them to meet academic demands, satisfy personal needs, fulfill community and family responsibilities; to establish and follow through on realistic plans; to manage their financial affairs satisfactorily; and to solve most problems as they arise. Involved in and contributors to the community in which they live, they are independent, goal-directed, resourceful, and self-sufficient persons who also are able to recognize when they need assistance and who seek and accept help when the need arises.

Cultural Participation Subtask (CUP). Students who have accomplished this subtask are actively involved in a wide variety of activities, including traditional cultural events such as attending plays, ballets, museums, art exhibits, and classical music concerts. Their leisure time is spent productively in such activities as reading, pursuit of hobbies, and voluntary participation in student organizations. They exhibit a wide array of cultural interests and a developed sense of aesthetic appreciation.

Developing Mature Interpersonal Relationships Task (MIR). Students who have high achievement on this task have developed relationships with peers characterized by
independence, frankness, and trust; they appreciate individual differences among friends and acquaintances and feel reduced pressure to conform to group norms or to conceal disagreements. In relationships with persons from different cultures, races, and backgrounds, they exhibit high levels of respect and acceptance and have a general attitude of openness to and appreciation for differences. Students high on this task are free from the need for continuous reassurance and approval from others and have minimal dependence on parents for direction in decision making.

The MIR Taks is further defined by three subtasks: Peer Relationships, Tolerance, and Emotional Autonomy.

Peer Relationships Subtask (PR). Having accomplished this subtask, students describe their relationships with peers as shifting toward greater trust, independence, frankness, and individuality and as feeling less need to conform to the standards of friends or to conceal shortcomings or disagreements. Students can distinguish between friends and acquaintances and have both kinds of relationships. Friendships survive the development of differences in activities, beliefs, and values, and reflect an appreciation for individual differences. Relationships with peers and authority figures are open and honest; disagreements are resolved or simply accepted.
Tolerance Subtask (TOL). Respect for and acceptance of those of different backgrounds, beliefs, cultures, races, lifestyles, and appearances describe students who have high achievement on this subtask. They respond to people as individuals; do not employ racial, sexual, or cultural stereotypes; have an openness to new or unconventional ideas and beliefs; and are appreciative of individual differences. Tolerance involves an openness to and acceptance of differences and does not mean the development of screening devices to shield one from the values and ideas of those with different backgrounds, lifestyles, or belief systems. Students high in tolerance do not shy from or reject contact with those with different ethnic, racial, or cultural heritages or with different religious beliefs, political views, or lifestyles.

Emotional Autonomy Subtask (EA). Students who have accomplished this subtask are free from the need for continuous reassurance and approval from others. Trusting their own ideas and feelings, they have the self-assurance to be confident decision-makers and to voice dissenting opinions in groups. They have confidence in their abilities and are prudent risk-takers. They have resolved many of the conflicts inherent in the child-parent relationship to the extent that reliance on parents for direction is minimal.
Academic Autonomy Task (AA). Students who have accomplished this task have the capacity to deal well with ambiguity and to monitor and control their behavior in ways that allow them to attain personal goals and fulfill responsibilities. High scorers devise and execute effective study plans and schedules; perform academically at levels with which they are satisfied are consistent with their abilities; are self-disciplined; and require minimal amounts of direction from others. While they are independent learners, they are also willing to seek academic help when needed.
REFERENCES


